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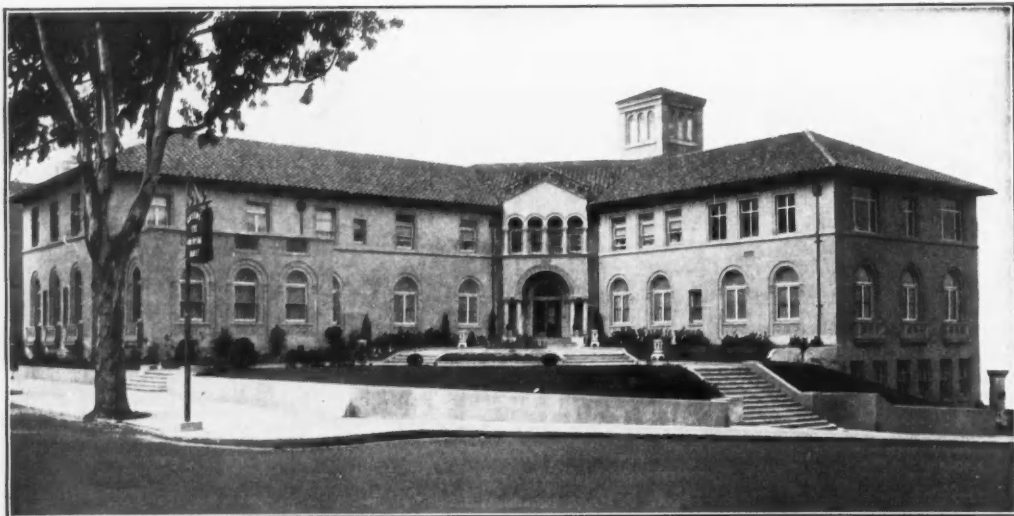
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VOLUME XXXII

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THOUGHTS ON ANGINA PECTORIS*

By W. S. THAYER, M. D.
Baltimore, Maryland

HIGH or low, rich or poor, monarchists, republicans or communists, we poor human beings labour alike under the tyranny of words. To most of us, to a greater or less extent, certain terms, certain names, certain adjectives, the moment they are uttered, evoke pictures in our minds sometimes agreeable, sometimes repulsive, sometimes menacing, of such vividness and intensity that the words themselves, ambiguous though they may be, become to us in a sense entities. Such words, such phrases, may have an appalling influence on human action.

In medicine it is as in life in general. The influence of a mere clinical term may sometimes be considerable. Such a term, while it may describe but a group of clinical symptoms varying in physiological, anatomical or pathological import, comes to be regarded not only by the laity but too often by the profession, as such an entity. The mere term becomes, in our mind's eye, almost a living thing. Alas, to too many of us the essence is of less significance than the name. We are all more or less like the good woman who greeted my dear old master after a lecture on astronomy, and, congratulating him on his fascinating remarks, said: "But the most extraordinary thing, Mr. C., that which I can't understand, is how you discovered the names of the stars!"

POPULAR SIGNIFICANCE OF TERM "ANGINA PECTORIS"

"Angina pectoris"—what a picture these words evoke in the mind of the average man!—a picture of hopelessness, of agonizing suffering, of the constant menace of sudden death; a vague, indefinite apprehension of one of the most terrible fates imaginable. One of our vital duties as physicians is to deliver our patients from bondage such as that under which they labour, subjects to the tyranny of words such as these.

Not infrequently a patient in my consulting room says: "Doctor, is this angina pectoris?" In response I usually laugh and say: "Yes, if you will, it is 'angina pectoris.' But what is 'angina pectoris'? It is many things from a mere warning that you are growing older and that you mustn't be quite so active as you were twenty-five

years ago—it is many things from this up to a really distressing and painful disease." And then I endeavour to enlarge upon this suggestion, pointing out to the patient the more hopeful side of the picture and dwelling upon the general management of his life until, usually, he leaves me calmed, encouraged, hopeful and ready, in so far as he is able to control himself, to lead the life that he ought to lead.

As a matter of fact "angina pectoris," as we use the words, is a term describing certain symptoms associated with cardiac and aortic disease—a syndrome which in itself varies widely in its manifestations and in its clinical course and prognosis. The anatomical alterations which are found post-mortem are generally associated with evidences of changes in the cardiac circulation and are, in my experience, less commonly due to aortic lesions other than those interfering with the coronary circulation than some of the modern literature would lead one to fancy.

WHAT DO WE MEAN BY "ANGINA PECTORIS"?

What do we generally include under the picture of angina or anginoid manifestations?

In a rough general way I should say:

1. Substernal pains or a sense of pressure or discomfort in the praecordium, brought on commonly by emotion or effort, sometimes by exposure to cold, always exaggerated by emotion or effort, always, if serious enough, necessitating the cessation of exercise or movement save in exceptional instances of which I shall speak. These sensations are associated generally with a radiation of pain or numbness or paraesthesia into the left arm more commonly, not infrequently into the right; into the neck, especially on the left side and, more rarely, into odd, distant localities. The first sensations of discomfort are very commonly in one or both arms, radiating to the substernal region. Pains in these localities brought on by effort or emotion and yielding with rest are always suspicious. I have seen angina in which, at the onset, the pains were referred purely to several teeth.

2. Severe spasmodic attacks coming on with emotion or apparently without cause which, save in the graver forms associated with coronary thrombosis, are relieved, almost always, temporarily, in their earlier stages by the nitrites.

As every physician knows perfectly well, anginoid sensations run all the way from the slight, tired, toothache-like feeling in the left arm or the

*Read before the Utah State Medical Association, July 3, 1929.

indefinite sense of substernal pressure and discomfort, to the severe, vice-like, gripping, boring pains of the graver attacks. A rather characteristic feature of the paroxysm, especially in the more highly educated and sensitive, is the sense of apprehension that comes with it, and this, in itself, goes all the way from a simple realization that this is a warning signal to which one must pay attention, that he must stop, that he cannot really go on with what he is doing, to the intense *angor animi* and fear of death which is characteristic of the graver attacks. This condition is often associated with cutaneous hyperaesthesia or paraesthesia over the precordial area and upper chest and along the arms in the region of distribution of the last cervical and first two dorsal nerves.

Now it is quite obvious that pain in the distribution of a definite nerve supply may be caused not only by a referred pain as in these cardiac manifestations, but also by pressure on or by injury to the nerves themselves; and pain in that distribution common in angina is not so very infrequent in disease of the lower cervical or upper dorsal vertebrae, that which has given rise often to confusion. But here the conditions of onset of the pain and the nature of the attack are always different and a mistake should not be made. Cutaneous paraesthesia and hyperaesthesia in like regions occurs also in cardiac disease other than in angina.

DIAGNOSTIC REFLEXIONS

In recognizing the syndrome which we call angina pectoris those symptoms which are suggestive are not the mere character and distribution of pain, but the clinical course of the manifestations, the way in which the attacks come on, the manner in which they may be induced, the procedures by which they may be relieved, the way in which the patient behaves during the attack. Often, the age and physical conditions and surroundings and temperament of the patient, as every practitioner knows, play a part which may be conclusive. For instance, a girl of sixteen may complain of intense attacks of precordial pain simulating angina very closely, and yet few of us would suspect that the manifestation was serious. We should demand confirmatory evidence of grave organic disease from the history, the physical signs or the results of other studies, that we might not feel necessary in a man of fifty; and we should usually find evidence enough that the attack was hysterical.

In like manner it is not at all uncommon to find in a young woman with a clean history, a story perhaps of abdominal pains, and a high degree of pulsation of the abdominal aorta; but we should not suspect an aneurysm. I have seen men rash enough to make a diagnosis of angina or abdominal aneurysm in such cases, but angina in a girl of sixteen or abdominal aneurysm in a young woman with good arteries elsewhere and without lues, are almost unheard of, and no one need give himself much anxiety under such circumstances unless the evidence is overwhelming.

One of the most important and characteristic features of angina is the appearance and behaviour of the patient during the attack. I shall never forget the picture of an old friend who, one day, I found on my doorstep, grey, pale, sweating, clinging to the railing, unable even to touch the button of the doorbell. This man, a few months before, had wanted to go to a well-known foreign bath resort for the treatment of cardiac disease. He was a native of the country in which this bath resort lay. I had warned him that if he decided to go he should first let me give him a letter to a distinguished clinician in that country; that if he went to the resort with a line from him he would be well cared for; otherwise he might easily receive a very careless sort of treatment—that which, alas, at that particular resort, was painfully common. He did not follow my advice. As he approached my house, boiling with indignation at the story he was about to tell me, his attack came on. When finally he was able to enter my consulting room his first words were: "I am ashamed of my countrymen." That picture of the fixed attitude, the pale, agonized expression, the ashen grey face covered with beads of sweat—that is the common picture.

One of the most pathetic instances that I remember was that of a man who, at the moment of the attack, was in the habit of rising from his bed, crossing the room to the mantelpiece on which he rested his left elbow, and stood swaying to and fro as he groaned gently, the tears pouring from his eyes, the sweat from his face—a distressing picture. Such attacks are uncommon, but are unmistakable when one sees them. Charles Sumner is said to have had the habit of walking about his room in severe attacks. But such movements are quite different from the violent muscular spasms of an hysterical attack.

Sometimes the relation of effort or emotion to the onset of anginoid pains may be entirely unappreciable to the patient. This is quite true in instances of coronary thrombosis. But after recovery, if recovery follow, the patient often appreciates the necessity of the restriction of physical effort and the relation of emotional strain to subsequent attacks of angina.

ANATOMICAL CHANGES IN ANGINA

But here let us stop for a minute and consider what we know about those anatomical changes which are associated with angina. At the very beginning, in the descriptions by Heberden and others, the calcified, narrowed coronary arteries were considered the most important elements in the picture. Since then much has been written about the frequency of coronary disease with angina, but many have laid emphasis on the circumstance which is undoubtedly true, that the gravest coronary disease, even thrombosis, may occur without anginoid pains. Others have called attention to the frequency with which the aorta shows signs of atheroma or syphilis. This has led some to feel that well-marked anginoid symptoms are rather more characteristic of aortic than coronary disease. Indeed, some are accustomed

to class as angina those attacks of nocturnal dyspnoea and anxiety so common in instances of syphilitic aortitis and aortic insufficiency. No one denies that coronary thrombosis may occur without much, or indeed perhaps without any of that which the patient actually describes as pain. No one denies that aortic disease may form the basis for anginoid attacks—for instance, by narrowing the mouths of the coronaries—but the more I see of angina the more I am inclined to feel that the picture of spasmodic attacks or discomfort induced by emotion or effort of the sort that I have described, is usually associated with coronary disease which interferes with the nourishment of the heart muscle and is, inferentially, often associated with painful coronary spasm. It may well be, as Keefer and Resnik¹ fancy, that the symptom is definitely associated with myocardial anoxemia. One of the most striking characteristics of anginoid pains is their relation to effort and emotion. But, as I have said, the immediate exciting cause of some of the sharp spasmodic attacks is hard to make out.

Those attacks, the gravest in their immediate import, which are associated with sudden coronary thrombosis, from which the patient recovers, are sometimes followed by years of disability in the sense that after the initial attack the patient finds himself in the same condition as does one in whom the onset of anginoid pains has been gradual; he can no longer take his accustomed physical exercise and he can no longer stand emotional strain without the appearance of anginoid pain. Here the symptoms have clearly followed a primary damage to the heart muscle by the coronary thrombosis.

The onset of mild anginoid symptoms, though commonly insidious, may then sometimes follow a definite coronary thrombosis. But it may also be sudden and without apparent cause, with the appearance, when the patient is at rest, of a slight aching pain perhaps in the substernal region or perhaps, at first, only paraesthesia or aching in one or both arms, pains which the patient may regard as rheumatic. Later, however, he finds that they are brought on or exaggerated by emotion or effort.

I think of such a patient whom I observed several years ago, a man in the early sixties who noticed, one evening, while getting ready for dinner, a rather uncomfortable "toothache-like" pain along the inner side of both arms. This individual, who was a physician, was rather struck by the location and character of the pain, which was unlike anything he had ever felt before. He avoided consulting his colleagues and kept very quiet for several days. He found out first that after several hours in bed, the pain disappeared, but recurred after rising. When it had entirely disappeared he found that unusual effort, such as brisk walking, brought the pains back immediately. Finally, after about a month, exceptional and unintended effort brought on an unmistakable attack of pain in the arms, radiating into the upper substernal region, which brought the sub-

ject to a standstill. With care this man has led a useful life since then, with very slow progress of his symptoms.

What happened to him when first he felt the pain? It seems to me that there is good reason to fancy that in such a case as this there was a sudden thrombosis of small terminal branch or branches of diseased coronaries. Up to the day of onset he had never noticed the least disability on exercise and he was a man who had taken rather violent exercise until the moment of the attack. The attack came out of a clear sky. Within a week or two afterwards tests showed that the characteristic disability had appeared.

Now in those cases of angina of gradual onset precipitated by emotion and effort, one usually finds either definite coronary disease or single or multiple areas of fibrosis in the heart muscle the cause of which is often not entirely clear, or both. I am rather inclined to think that time will show that in such cases as that just referred to, in which the onset, though very mild, is sudden and followed later by the symptoms characteristic of angina of effort—I am inclined to think that time will show that, in such cases, the onset has been associated with the occlusion of a small terminal branch or branches of the coronary vessels; not the brutal occlusion of a large branch with a considerable area of infarction of the heart muscle with its characteristic symptoms, but nevertheless a sudden thrombosis of final terminal branches which has produced enough interference with the circulation to bring on thereafter the characteristic symptoms of angina. I quite agree with my friend, Harlow Brooks, that in few instances of angina which one studies carefully anatomically do we fail to find, at necropsy, rather definite coronary changes.

The answer of the opponents of the hypothesis that angina is usually associated with coronary disease—the answer, that many show coronary changes who have not had angina and that in some dead of angina, coronary disease has not been demonstrated—does not seem to me convincing. For coronary disease or multiple fibrous patches in the heart muscle are found in the great majority of instances, and the most characteristic picture of angina may be produced by coronary thrombosis.

EXCITING CAUSES

What then do we know about the cause of the syndrome which we call angina pectoris?

1. We know that the severe spasmodic attacks begin and run their course like spasms of involuntary muscle. We know that they are relieved in many instances by antispasmodics like the nitrites, which relax the arterial spasm. We know that in most instances the hearts of patients who have had attacks like this show obvious disease of the coronary vessels postmortem. We know that in those subject to angina, attacks may often be brought on or precipitated by emotion and effort.

2. We know that, in another sort of clinical picture, distressing sensations in these same regions and of the same character, though often

milder, may be produced by effort or emotion, yielding in the less severe instances, so soon as the effort is stopped. We know that in such patients the frequency of the paroxysms increases usually through the years. The attacks appear on less and less provocation until the wretched patient is bedridden. And we know that, at necropsy, there is generally either obvious disease of the coronaries or numerous sclerotic areas in the heart muscle not improbably the result of the gradual occlusion of terminal coronaries.

3. Finally we know that the most exquisite and persistent and unrelievable pain of exactly the same character, together with other suggestive symptoms of thrombosis, tachycardia, fall of pressure, fever, leukocytosis, may follow the occlusion of a branch of a coronary artery.

In other words, whatever justification there may be for other hypotheses as to the cause of angina pectoris in instances in which obvious disease of the coronaries has not been recorded, the evidence that it is related, for the most part, to coronary disease is very strong. We know that it may be brought on by coronary thrombosis; we know that, excepting by the use of morphia, the most satisfactory way in which to relieve it, save in coronary thrombosis, is by the use of the nitrites, which we know relax vascular spasm; and, in the third place, we know that evidence of actual disease of the larger or smaller coronaries, or occlusion of their mouths as a result of disease of the aorta, or evidence of disseminated fibroid patches in the heart muscle which mean the replacement of necrotic tissue which in many instances may best be accounted for by the hypothesis of the occlusion of terminal branches of the coronaries, are usually found at necropsy. These circumstances lead me to believe that the syndrome that we call angina pectoris is usually of coronary origin. That the character and distribution of pain in aortic disease—syphilis, aneurysms—is similar to that in anginal attacks is undoubted, but the spasmodic attacks of dyspnoea observed especially at night, usually seen in hypertensives, the "angina of rest" of Vaquez, form, it seems to me, a special, distinct picture. This picture I have not as a rule classed as "angina pectoris." I agree that in such cases evidence of coronary sclerosis or of fibroid changes in the heart muscle is not so common, though sometimes narrowing of the mouths of the coronaries and areas of fibroid change are found. So much has been written about coronary thrombosis in the last few years that it may be hardly worth while to enter into any lengthy discussion of the picture here. The history of the recognition of coronary thrombosis is, however, so interesting that I cannot refrain from saying a few words. I feel sure that had we not been so satisfied with the term "angina pectoris," had we been considering our patient from the proper standpoint, that is from the standpoint of one trying to make out physiologically what might produce these given symptoms, instead of being satisfied to classify them

under a name, the clinical picture of coronary thrombosis would have been recognized many years before it was.

CORONARY DISEASE

Brought up with the feeling that was held by the old English authors that angina was usually a manifestation of coronary disease, it never occurred to me that the first instance of coronary thrombosis that I saw—in 1895—was anything other than a coronary thrombosis, and it never occurred to me that anyone else would have had any other view of the case. The patient was seen by Doctor Osler. We discussed it together. There was no necropsy, but I feel perfectly sure that he regarded it as an instance of coronary thrombosis as well as I. When I met with my second case in 1899, a most typical example, followed, two days later, by a pericardial rub, I recognized the case equally clearly, commented on it in my notes, and often talked about it to my students. I am perfectly sure that many physicians all over the world have recognized the syndrome in times past. The credit, however, of bringing the clinical picture before the medical public belongs to my dear friend, Herrick of Chicago, who first really called attention to it in 1906. It is truly extraordinary to see how many instances have been recorded since this time; how frequent a manifestation it is. As one of my distinguished colleagues observed the other day, it is perhaps too readily suspected by some. One might fancy that it was a new disease. How many new diseases are like coronary thrombosis, under our eyes every day of our lives but recognized by the world only when someone like Herrick has put the matter clearly before the public? I am always suspicious of new diseases.

I have spoken of the frequency of coronary disease, of the circumstance that coronary thrombosis followed by scarring of the area of infarction in the heart muscle and recovery may be followed by the development of characteristic anginoid pains on effort, and of the possibility that, in some cases, the sudden onset of mild anginoid symptoms without apparent cause, without the fever, leukocytosis, fall of pressure, tachycardia and other signs of an extensive infarction, may mean the sudden thrombosis of smaller terminal branches. Such an onset may be followed, at any rate, by the typical picture of permanent angina of effort. I have mentioned also that the symptoms of paroxysmal angina are, in their course, very like the spasm of smooth muscle fibre and that they are relieved by the nitrites, as if, in some way, disease of the coronaries or increasing demand on insufficient vessels brought on vascular spasm, though, of course, this is but a hypothesis.

One should not forget, however, the most interesting fact that, especially in hypertensives, beginning dilatation of the heart with evidences of pulmonary engorgement or particularly failure of the right side of the heart, not infrequently mark the end of anginoid pain. A patient who

for years has suffered from angina may lose his pains with the onset of congestive cardiac failure and, as Harlow Brooks has emphasized in a recent address, if coronary thrombosis may sometimes mark the beginning of anginoid pain, it sometimes, also, marks the end in that a large area of infarction upsets the cardiac compensation, and the patient dies after weeks or months or, indeed, years of congestive cardiac failure without the recurrence of angina.

Indeed sometimes an attack of coronary thrombosis, followed by symptomatic recovery, may be succeeded by a long remission in anginoid pains. This is due sometimes, I think, to the moral influence of the attack and the treatment which have impressed on the patient the necessity of leading a reasonable existence.

REFLEXIONS AS TO TREATMENT

But in this informal talk I want to dwell especially on the question of how we may help the sufferer from angina pectoris. Years ago, in speaking with my dear and wise old instructor, Dr. Frederick C. Shattuck of Boston, I observed that I always felt depressed and discouraged when I saw a patient with angina because there was so little that I could do. He laughed and said, in effect, that there were few conditions in which he felt he could do more. As the years have gone by I have come to realize fully how wise he was and how innocent and young I was. One can do much for many patients with angina; indeed the ability to help a patient with angina is a rather good test of the quality of the doctor. 'Tis a familiar truth and nowhere is it more apparent than in conditions such as this, that the wise physician accomplishes more by his kindly and intelligent advice and counsel than he does by his prescriptions and his medical treatment. The treatment itself varies greatly with the condition in which we find our patient, but under nearly all conditions the personal element, the tact, the judgment, the kindliness of the doctor, his willingness to take time to explain matters properly to his patient, to break unpleasant truths to him in such a way that he will look upon the hopeful side—these are often the most important elements of treatment. This applies equally to the family practitioner and the consultant. One cannot treat the patient with angina pectoris without giving him time and careful consideration.

Suppose a man comes to us, as he commonly does, when he begins to observe that effort produces unmistakable anginoid symptoms.

There is no more fascinating opportunity than that afforded by this situation, to relieve suffering and to prolong life; but it is a time-taking procedure. To begin with, to attempt to hide the nature of his condition from such a patient is silly, and certain to defeat our ends. Does that mean the necessary employment of the word "angina"? Of course not. The word "angina" is the very thing that we are seeking to avoid. We are trying to escape from the tyranny of alarming words, and to express the essence of the situation in such manner that it may encourage rather than depress

the patient. In most instances this is quite possible to accomplish. But it demands time, time and careful explanation—explanation of the nature of the situation; that it is a warning, a red flag, and not a "smash-up"; that it is evidence of some defect in the circulation in his heart muscle; that it is the first notice which every man must have at one time or another, that, physically, he is not in the best condition; that every man of his age has some bad vessels; that many of us have the good fortune to have these in positions where they do no harm; that he, perhaps, has had bad luck, but that, after all, the warning may be rather a bit of good fortune than otherwise. And here I often refer to Osler's paper on "The Advantages of a Trace of Albumen and a Few Tube Casts in the Urine for a Man Over Fifty Years of Age," a diversion which often amuses and encourages the patient, at the same time impressing on him the truth. Or again I tell him that he is somewhat in the position of the patient with early tuberculosis, whose first symptom is an haemoptysis, often the most life-saving of incidents in that it draws attention to the existence of pulmonary mischief amenable to treatment, mischief which might otherwise be overlooked until too advanced for relief.

Here the value of experience becomes especially appreciable. We should preserve with the utmost care the records of the occasional medical miracles with which we all meet, and of the especially favorable cases in our practice. These will be among our most precious implements in the treatment of angina; they will be more valuable to us than most drugs. A true story of someone who has recovered from a like condition is often almost life-saving to the sufferer. He forgets everything else but the picture of that patient who recovered and soon, in his own heart, he comes to fancy that this perhaps may be the rule rather than the exception.

Only the most confirmed Christian Scientist exaggerates the importance of faith and hope in the practice of medicine.

In almost every instance of angina one is justified in encouraging the hope that if all goes well the patient may either recover entirely or at least be able, with certain reasonable modifications of his habits, to go on for a long period. It is a careless and sloppy method of practice to satisfy one's self by a few words with the patient, and by the statement that this is "false angina" and not "true angina." What we are trying to do is to escape from the dominion of terrifying and misleading words, and the words "false angina" produce in the patient's mind the picture of something as definite as his mistaken fancies concerning the meaning of "angina." Merely to give one's symptoms a name does not mean much. If one can make his patient feel that the word "angina" does not mean a sentence to suffering and death, but only describes a certain set of symptoms which vary enormously in their intensity and prognosis; that there is a considerable element of hope in his case, you can do far more for him. One must remember that the essential feature of our treat-

ment should be to encourage him to modify his life as he should; one can accomplish this only if the patient realizes the necessity.

And now after one has talked to him and encouraged him and led him to feel that what has happened may be hard luck, but not the end by any means, that it may indeed lengthen his life by inducing him to lead a proper sort of existence, after all this, what else have we that we can do for a patient with beginning anginoid symptoms? We can, it seems to me, do a great deal.

1. One must put the patient into the best possible physical condition. To do this we must carefully go over his manner of life. We must find out just what it is. Very often we find that he leads a disordered and hurried life. We must begin by inquiring into the character of his day, and these inquiries we must make not only of himself, but of his wife and others who observe him. We must see to it that he begins the day without hurry; that his habits are regular; that he takes plenty of time for his meals; that he eats deliberately and, of course, moderately; that he avoids constipation, and this is a matter often that needs the most careful attention and is very time-taking for the physician, for the treatment of constipation does not consist in simply prescribing a laxative. We must look carefully into his habits in view of the possibility that he may be subjected to some of the toxic influences which have been thought to play a part in inducing angina. Gout is certainly of importance. Tobacco may be of importance; it is certainly in instances of hypertension. While I, myself, have never seen an instance of angina which was definitely "cured," if one may use the word, by the omission of tobacco, I am sure that I have seen great benefit in some cases of nervous, heavy smokers, from the abandonment or modification of smoking. If the patient be one of those unfortunate, weak-minded invertebrates, of whom there are too many in the world, who "simply can't stop smoking," who cannot refrain from making himself a nuisance to his fellow man by standing around, red-eyed and "frowsy" headed, while he smokes his cigarette in the crowded dressing room of a sleeping car before he can begin his morning toilet, there is but one thing for him to do, and that is to stop it. Every man of that sort has a serious drug habit. If he is obviously smoking too much, and is a man, he should learn to smoke in moderation and only at leisure after his meals.

Every effort must be made to induce the patient to avoid hurry. A hurried day is often initiated by habits of rising and dressing in a few minutes. Some patients, if taught to realize this, may learn to add a quarter or even a half an hour to their dressing time, to read the paper during the hours of dressing, and arrange matters in such a way that, the initial hurry avoided, the day goes on with a calm with which they have been previously quite unfamiliar.

In order to put one's patient in the best possible condition the importance of searching for and relieving focal infections cannot be exaggerated.

It is often impossible to say that the relief of this oral sepsis or that chronic prostatitis has been the cause of so much improvement, but there is no doubt whatever that occasionally the influence of focal infections, apparently unimportant, is far-reaching. I have had one instance of the disappearance of an angina following a tonsillectomy for good cause. The improvement, of course, may have been *post hoc* rather than *propter hoc*. However that may be, the incident is true, and so worth heeding, while from a therapeutic standpoint this experience has been of considerable value in helping me to induce patients to do what it seemed to me they should.

I am very apt to end my conversation with a patient of this sort by reference again to Osler's habit of speaking of the advantages of a trace of albumen in the urine for a man over fifty. "But," one may say, "suppose this man ask you about sudden death?" That is a bugaboo which, with most patients, is dealt with very easily. It is not the patient who is annoyed about that; it is the family. To the patient who asks you it is easy and true to say that he has a somewhat better chance than the average man of dying the most blessed sort of a death. That, alas, is about all, because many sufferers from angina die in other ways. Too many, alas, go through the distressing stages of progressive myocardial failure. It is not hard as a rule to make one's patient look at the possibility of sudden death as a blessing rather than a menace.

The medical treatment of such a patient, beyond special emergencies, is symptomatic. If the patient be syphilitic he has, of course, a door of hope, but syphilis is not the common basis of angina. In syphilitics it is exceedingly important to begin treatment with mercury and iodides, and not to use intravenous arsenical treatment until later. I have not happened, myself, to see sudden death follow the abrupt use of arsphenamine, but I have seen what seemed to me grave, immediate reactions.

The treatment of constipation I have already referred to. The treatment of the attacks may be summarized in two words—"nitrites, morphia." The nitrites often produce the desired result. It is only in the grave spasms that morphia is necessary when, of course, it should be employed freely.

I feel, as does Harlow Brooks, that either tablet triturates of nitroglycerine or liquid tincture of glonoin are the best forms in which to employ the nitrites. They are usually as good as nitrite of amyl. The nitrites should be employed symptomatically. Continued employment seems to me quite useless. The dose may be increased as is necessary. It is a great relief to many individuals to feel that they have in their pockets a ready relief of this sort. Other drugs, of course, help, but the nitroglycerine is so much simpler. Still one must not forget that it is very hard to make any absolute rule in medicine, and sometimes, where nitroglycerine, even in small doses, brings on uncomfortable flushing, other preparations such as Hoffman's anodyne or sweet spirits of nitre may help.

I have a dear friend who always carries in his pocket a lovely cut-glass cornucopia-shaped receptacle with a silver top—a receptacle which must have been intended, I should think, for smelling salts. This receptacle contains about two ounces of *spiritus frumenti*. A little straight whiskey stops the attack and the patient who, beside being a temperate man, is one of the most distinguished of our colleagues, ought to know. There are some advocates of temperance who call themselves Christians who might disapprove of this; but there is no intemperance more blind or more cruel, no immorality more pernicious than that practised by some well-meaning fanatics in the name of temperance and morality.

If the patient be hypertensive or obese these conditions must be considered and properly combated.

2. If the attacks become more frequent or, of course, if one find his patient in an attack suggesting a coronary thrombosis, or indeed, if, in a progressive angina, the signs of myocardial failure come on, then the urgent need is for rest—a long rest. What is the value of rest? In an acute cardiac infarction or with a myocardial insufficiency the value of rest is obvious. By saving every heart beat the heart muscle is given an opportunity to regain strength; the circulation about an area of infarction may have a chance to become reestablished so far as possible; the heart is submitted to the least possible strain while the softened area is becoming scarred. In instances of angina where the attacks are becoming more frequent, a rest treatment is often of great value not only in that it spares an exhausted heart unnecessary beats, but in that it gives the patient an invaluable opportunity to adjust himself to the proper manner of life.

Under such circumstances what does one mean by rest? At what should we aim? Rest in bed at home? No. That is but a halfway measure. If it be possible the patient should be at rest in a hospital, wholly separated from his affairs, or if it must be at home, he should be isolated and under the care of a nurse. The patient almost always asks why home is not just as good as a hospital. Although he protests, it is usually not so very difficult to explain the situation. Few busy men can rest, really rest, at home. How many of us have tried to retire to the upper floors of our house and sought to spend a few days entirely freed from the cares of everyday life? How impossible it is! Every ring of the doorbell, every rattle of the telephone, suggests forgotten duties. The moment we are left alone we desire to get out of bed to arrange this or that little thing which must be done before the rest really begins, and the rest never comes. More than that, at home one has a sort of a right, or at any rate feels a sense of duty to direct or advise or meddle with a thousand little things. In a hospital or, if impossible, so well as one can at home, the patient should be guarded from every interruption. He should be induced entirely to throw aside his business affairs. He should be kept absolutely in bed

under rigid rules; and it seems to me that the importance of rigid rules, such as forbidding him to rise from bed even to use the commode, is as important here as in any so-called "rest cure." The value of such rigid, martinet-like rules in the care of such a patient at the beginning, which is obvious in the instance of a grave coronary thrombosis, lies in the circumstance that it impresses deeply upon the patient the necessity of care in the future. At the same time, the improvement which usually follows the rest encourages him and gives him hope. There is no manner in which one may so certainly induce the patient to lead the proper life in the future as by a rigid period of rest and retraining. The period of rest after a severe coronary thrombosis may have to be very long, and it is often wise to keep a patient who has had merely persistent anginoid symptoms in bed for at least a month and then to give another month in very, very gradual retraining. While in bed it is important that the patient should have thorough general massage so as to keep the muscles in the best possible condition. When one begins to allow the invalid to sit up and get out of bed the progress should be step by step. A month's rest in bed in a hospital demands nearly a month of retraining and graded exercises before he leaves, and, where it is possible, I always like to send the patient for three weeks or a month thereafter to a good sanatorium where he may be under the care of well-trained men—a sanatorium like Clifton Springs, for instance—or to a resort like Atlantic City, so that he may get back into the habits of a normal life under proper observation. The permanency of the improvement following such treatments is sometimes astonishing, not only in those patients who have had a definite coronary thrombosis, but sometimes in instances where the anginoid attacks have lasted for several years and have given every promise of pursuing a progressive course.

My friend X, aged forty-eight, an engineer with important responsibilities, had begun, in 1913, to suffer from a sense of tightness across the front of the chest on effort. In the fall of 1914 he consulted me because the attacks, brought on by slight effort or emotion, had become very severe. They were located behind the sternum, were like a "red-hot iron" and radiated down his left arm and to a lesser extent his right. The pressure rose during attacks. A long rest, first in a hospital, then at Clifton Springs and in the country, with gradual retraining, was followed by a complete disappearance of the attacks. The patient learned how to live. He resigned his position, but soon was able to take up work as a consulting engineer and is today, after fifteen years, an active, successful man. He has resumed golf in moderation. He feels sure that violent effort would bring on his pains, but he has learned his lesson, and while, fifteen years ago, slight effort brought on severe attacks in bed, today he is leading a useful life.

My colleague, B. H. Rutledge, has recently had charge of a man of over seventy, who had had

characteristic angina of effort, of increasing frequency for eight years, so bad that they came on under most trivial effort, and waked him repeatedly at night. A treatment of complete rest and retraining lasting three months has, for the time being, wholly ended the pains. This man has resumed his business successfully for nearly a year; he has not had an attack for a year.* Cured? Of course not, but greatly benefited and enabled to live a comfortable life which may endure for a considerable period.

Medically we know only palliatives, but our general management of the case may bring about practical recovery for considerable periods of time. There is no condition where the skill and judgment of the physician comes into greater play.

As I have said elsewhere, the management of the family is the most difficult problem. The patient is usually one's best confidant. The family are very hard to deal with and it is in their power to make the patient's life utterly miserable. One must seek by every conceivable means to induce the family to let the patient alone, and never, by word or act, to show their anxiety. To do this is not always possible. Too often a loving but ill-balanced wife or husband, by constant manifestations of anxiety, may ruin the life of the patient.

At the outset of these rambling remarks I spoke of the tyranny of words under which we all live. The tyranny of the slogan or the shibboleth, while it may be a humiliating evidence of human weakness and impressionability, is, at the same time, a striking example of the power of words. Sometimes, I think, we physicians forget that if the knife be the most valuable implement of the surgeon, so is the tongue the most precious instrument of the physician. There are still relatively few specifics in medicine. It is by our counsel, by our moral influence, by our powers of explanation or illustration or reasoning, that we induce the patient to realize that which he must do to preserve himself and others from disaster. It is by the tongue that we achieve our chief results. Without careful education and training, without a good head to begin with, without experience and the power to profit by experience, no surgeon can properly use his knife; no physician can properly use his tongue. There is no regular rule by which the physician may be guided. Medicine, while we remain human beings, can never be practised by rule; if it could, the function of the physician would be much easier if, indeed, it continued to exist. There is no specific for that syndrome which we call "angina pectoris," but there are few maladies which can be more profoundly influenced by the wise counsel of a judicious physician. It is easier, far easier, to sit down and write a prescription which may be handed to the patient with a few words of direc-

tion in an instance of tertian malaria, than it is to guide a patient with early anginoid symptoms into that course of life which may enable him to play his full part in the world's activities. But the results in the latter instance may be just as great, if harder to achieve.

Let us beware of the tyranny of words, but let us not forget the power of words; for in wise words, wisely used, lies a great part of our art.

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ACUTE CHOLECYSTITIS—ITS SURGICAL TREATMENT*

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DISCUSSION by Stewart Lobingier, M. D., Los Angeles; O. O. Witherbee, M. D., Los Angeles; Harold Brunn, M. D., San Francisco.

THE treatment of acute cholecystitis varies markedly. On the Continent the treatment is essentially radical, in America it is mainly conservative, but within each of these areas there are widely divergent views on the subject. The study here presented was undertaken at the San Francisco Hospital to establish the status of the treatment of acute cholecystic disease in the San Francisco Bay region of California.

CASES IN THE LITERATURE

Hotchkiss¹ in 1894 reported the first case of acute gangrenous cholecystitis. In 1904 Mayo-Robson² reported two cases, and in 1906 Ross³ reported five cases and gathered eleven from the literature. Since that time scattered case reports have been published by Tate,⁴ Whitacre,⁵ Cramp,⁶ Cottam,⁷ Andrew,⁸ Cameron,⁹ Ferguson,¹⁰ Gould and Whitby,¹¹ and others (Table 1). To interpret the literature on this subject it is necessary to understand the different writers' conceptions of acute gangrenous cholecystitis. Unfortunately this is difficult because of the variations in classification and the personal element in interpretation of the pathology of acute cholecystitis.

CLASSIFICATION OF GALL-BLADDER LESIONS

I have tried to follow MacCarty's¹² classifications of gall-bladder lesions, considering acute cholecystitis as simple "acute catarrhal cholecystitis" and "cholecystitis purulenta necrotica."¹³ The admissions into the San Francisco Hospital, under the heading of acute cholecystitis, include acute catarrhal cholecystitis, acute exacerbations of chronic cholecystitis, the acute cholecystitis of pregnancy, acute hydrops, acute empyema, acute phlegmonous cholecystitis, and acute gangrenous cholecystitis (Table 2).

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*It is now nearly two years. The patient remains active and in good condition.

TABLE 1.—*Acute Gangrenous Cholecystitis—Case Reports*

Author	Year	No. of cases
Hotchkiss	1894	1
Ferguson	1898	1
Mayo Robson	1904	2
Ross	1906	5 total 11
Tate	1910	1
Whitacre	1911	1
Cramp	1915	2
Cottam	1917	3 total 44
Andrew	1923	1
Cameron	1927	4
Gould and Whitby	1927	2

Lobingier¹⁴ has added a group which he calls "necrotic edema." This lesion belongs to the early acute hydrops and to the early or potential gangrenes. Many of my cases of acute cholecystitis undoubtedly belong in this group, but in this series of acute gangrenous cholecystitis, I have tried to avoid such cases because I feel that many of these subside under conservative treatment; whereas acute gangrenous cholecystitis could scarcely do so.

METHODS OF TREATMENT

Most authors agree that acute gangrenous cholecystitis warrants extirpation of the gall bladder immediately. If this lesion could be identified preoperatively, there would be little question about the proper procedure. But it is so difficult to interpret the type and the degree of pathologic change in the gall bladder clinically that the surgical treatment is often in doubt. Experience has shown that most acute lesions in the gall bladder subside under conservative treatment, and the American authorities advise conservative care in "acute cholecystitis" for this reason. This is especially true for simple acute catarrhal cholecystitis, acute hydrops, and early acute empyema of the gall bladder. Even cases of early perforations of the gall bladder are often best treated conservatively. Therefore Haggard,¹⁵ Deaver,¹⁶ Bunts,¹⁷ Lyons,¹⁸ Verbrycke,¹⁹ DuBose,²⁰ McGuire,²¹ Judd,²² Richardson,²³ Muller,²⁴ Archibald,²⁵ Balfour,²⁶ Martin,³⁴ and others have advised conservative treatment for acute lesions of the gall bladder. On the other hand, Walton,²⁷ Leriche,²⁸ Cotte,²⁹ Kirschner,³⁰ and many others recommend immediate cholecystectomy for "acute cholecystitis." The attitude of a group of seven local surgeons in this matter is indicated in this present study.

SAN FRANCISCO HOSPITAL STATISTICS

From 1919 to 1928 there were 76,902 hospital admissions into the San Francisco County Hospital. One and a half per cent of these were ad-

TABLE 2.—*Acute Lesions of the Gall Bladder—Pathologic Classification*

Acute catarrhal cholecystitis
Acute exacerbation of chronic cholecystitis
Acute cholecystitis of pregnancy
Acute hydrops
Acute empyema
Necrotic edema
Acute phlegmonous cholecystitis
Acute gangrenous cholecystitis

mitted or subsequently diagnosed as "cholecystic disease," and 31 per cent of the latter were operated upon. One hundred and sixty-one cases were diagnosed "acute cholecystitis," and thirty-eight of these (23 per cent) were subsequently proved to be acute gangrenous cholecystitis. Therefore about 0.042 per cent of the total hospital admissions and four per cent of the total cholecystitis admissions were for acute gangrenous cholecystitis. This unusually large number of patients with acute gangrenous cholecystitis can be accounted for by the fact that this hospital receives most of the urgent cases from the Emergency Hospital service of the city of San Francisco, and by the fact that the usual county hospital patient has an advanced lesion before he enters.

McGuire²¹ has reported that five per cent of one thousand gall-bladder operations were performed in the acute stage, and MacCarty and Corkery stated that above five per cent of five thousand cholecystectomy specimens belonged to the acute group.

Seventy-eight of the one hundred and sixty-one admissions for "acute cholecystitis" were operated upon within the first twenty-four hours after admission; thirty-eight of these were found to be acutely gangrenous gall bladders.

Of the remaining eighty-three cases, although diagnosed acute cholecystitis, sixteen were not considered imperatively operative, nine were acute abdominal lesions but not definitely acute cholecystitis, thirty-two were observed for a period of time and finally diagnosed as subacute lesions other than cholecystitis and not operated upon, three were acute exacerbations or onsets of cholecystic disease associated with pregnancy and were not operated upon. Eighteen cases were definitely advanced acute cholecystitis and were treated conservatively without surgery.

Among the seventy-eight cases operated upon within twenty-four hours after entrance into the hospital, thirty-eight were found to be acute gangrenous cholecystitis, nine were acute exacerbations of chronic cholecystitis or acute empyemas with fibrin or purulent exudate on the serosal surface of the gall bladder but not gangrenous or ruptured. There were thirty acute or subacute exacerbations of chronic cholecystitis limited to the gall bladder and without gross involvement of adjacent structures. None of these were gangrenous, but many belonged to the groups of necrotic edema, subacute empyema, and subacute hydrops. One was a true acute catarrhal cholecystitis, a relatively rare lesion. One patient was operated upon for "acute cholecystitis," but the gall bladder appeared normal and no other abdominal pathology was found.

ACUTE GANGRENOUS CHOLECYSTITIS

The thirty-eight cases of acute gangrenous cholecystitis that were operated upon immediately were studied in detail. Twenty of the patients were men and eighteen were women. Their ages varied from nineteen to seventy-six years, the

average being forty-nine years, but the greatest number occurring about the age of fifty-five.

Pathology.—Acute gangrene occurs occasionally from torsion of the gall bladder. Textbooks of pathology consider this form of etiology, but it is not often encountered. Cramp⁶ reported such a case in 1915, and a few others appear in the literature. None of our cases belong in this group.

The majority of cases occur as a result of gall-stone impaction in the neck of the gall bladder or in the cystic duct, interfering with the blood supply and so producing gangrene. Gall stones, therefore, account for a large number of these, but in our series stones were absent in ten of the thirty-eight specimens. We must account for the gangrene in these instances by an acute virulent infection and, in conformity with this thesis, six of the ten noncalculous gangrenes were described by the operating surgeon as acute phlegmonous cholecystitis with gangrene. Hotchkiss¹ attributed the gangrene in his case to pressure of the exudate within the gall bladder with consequent stasis in the blood vessels. Gould and Whitby have reported two cases of acute gangrene of the gall bladder due to the *Bacillus welchii*, gas, and positive cultures having been obtained from the gall-bladder wall, bile, and stones in one case and from the gall-bladder wall and bile in the noncalculous specimen.

Occasionally localized areas of gangrene occur as a result of embolic phenomena, but these cases do not belong to the group of acute gangrenous cholecystitis. They probably rupture early and account for those acute perforations that occur without stones. Those specimens that show gangrenous edges about the site of a decubitus ulcer from stone erosion or perforation, likewise do not belong in this group, for the pathology in these cases is not that of a true acute gangrenous cholecystitis in which half or more of the vesica fellea is gangrenous.

Symptoms and Signs.—The majority of the patients operated upon for acute gangrenous cholecystitis had had gastro-intestinal distress for many years. Most of them had the characteristic signs and symptoms of cholecytic disease for long periods, and the present attack resembled previous ones except for its unusual severity. Eight patients, however, vigorously denied ever having had any "stomach trouble" or other symptoms suggestive of biliary disease. This point was emphasized in the histories, and is of particular interest because of its supposed rarity. Tate,⁴ Ferguson,¹⁰ Brunn,³¹ and others have noted the onset of acute cholecystitis without previous suggestive signs of gall-bladder disease and it is important to emphasize this fact, for it is evident that acute gangrenous cholecystitis may be the primary and initial manifestation of biliary disease.

Most of the patients presented the typical signs of an acute abdomen when they entered the hospital, with fever, leukocytosis, localized tenderness and rigidity, and had vomited one or more

times before entrance into the hospital. One patient, however, was observed in the hospital for eighteen days before the signs were sufficiently definite to warrant surgical intervention. She had been treated conservatively for acute cholecystitis, but gangrene developed slowly and without manifest signs or symptoms until the eighteenth day. Tate reported a similar case in which one month elapsed before gangrene appeared while the patient was observed during an "acute cholecystitis." Brunn's³¹ case is interesting in this connection, for he observed a patient who presented few signs or symptoms, without fever and a white count of only 4000, whose gall bladder was partially gangrenous when removed.

Preoperative Diagnosis.—A diagnosis of acute cholecystitis was made in all but six of the thirty-eight cases. Two were considered ruptured gastric ulcers, one a diffuse peritonitis, one mesenteric thrombosis, one intestinal obstruction, and one an "acute abdomen." Gall stones were considered present in practically all of the cases, but were found in only 74 per cent.

Operative Procedures.—Most of the patients were too ill on entrance to be given any preoperative preparation other than the usual immediate care. They were operated upon within twenty-four hours after entrance except for the one noted above that waited eighteen days. Many of them were explored within one or two hours after entering the hospital.

Exposure was effected in various ways, most of the surgeons using a high right rectus incision. I prefer the Kocher incision as modified by Judd, beginning high up on the ensiform and paralleling the costal margin about three centimeters from its edge. The fascia is incised in the same plane, but the muscle fibers of the rectus are split longitudinally. The posterior sheath of the rectus and the transversalis are incised with the peritoneum parallel to the skin incision. The muscle is then retracted laterally and medially, and good exposure obtained. Closure is not difficult after this incision, and I have never seen a postoperative hernia following this closure.

If the round ligament of the liver is severed and used for traction, it everts the under surface of the liver and adds materially to the exposure of the gall-bladder fossa. The operative procedure is carried out as previously described,³² except that clamps are not used for traction on the fundus of the acutely gangrenous gall bladder. The vesicle is usually distended and firm, very friable and easily ruptured, and the less it is handled the better. Gentle traction with the fingers of the left hand is usually sufficient for the necessary operative manipulations.

Cholecystectomy was performed for twenty-two of the thirty-eight cases of acute gangrenous cholecystitis and cholecystostomy in sixteen by the seven surgeons who operated in this series. In one of the cases the gall bladder had virtually dissected itself free and was hanging from the liver suspended only by the cystic duct much in

the same manner as Cameron⁹ has reported in two cases. In many instances cholecystectomy is an easy procedure in these patients, for the vesicle dissects away from its liver bed readily and is peeled out without serious venous oozing. The gall bladder was clamped off close to the cystic duct in all but two cases. In one of these about a third of the gall bladder was left with the stump of the cystic duct much as Cullen³³ has advised. Lobingier has suggested that the neck of the gall bladder be left and a drainage tube sutured into it. Martin proposed that the gall bladder should be split longitudinally and the wall adjacent to the liver left after curetting the mucosa from it. I have done this procedure in one instance with good results, but as a rule the gall bladder peels away from the liver so readily that it is not necessary.

Abundant drainage is indicated in these cases and was carried out in all but one instance. The patient had a cholecystectomy for gangrene involving the distal half of the gall bladder, without stones. The abdomen was closed without drainage and the patient made an uneventful convalescence.

Some authors insist that cholecystostomy is the operation of choice in acute gangrene. There are times when it is indicated, of course. In this series it was considered advisable in 40 per cent of the cases. It is often easier than cholecystectomy and certainly less shocking, in selected cases. It is not the operation of choice for true acute gangrene because of the danger of leaving gangrenous tissue in the abdomen. Furthermore, it is sometimes technically more difficult because it is impossible to purse-string a drainage tube in friable gangrenous tissue. Coffey³⁵ recommends cholecystostomy and the use of abundant drainage material as in his "quarantine pack," and, in certain cases, it is the method of choice. But I feel that cholecystectomy should be done whenever possible because it effects the total removal of gangrenous tissue, avoids the necessity for secondary operations, and decreases the time of postoperative convalescence both in the hospital and at home. Eighteen per cent of the cholecystectomy cases left the hospital within fifteen days after operation, while none of the cholecystostomy patients left within that time. Fifty per cent of the cholecystostomy patients remained in the hospital more than thirty days postoperatively; whereas only 18 per cent of the cholecystectomy patients remained that long. Forty-one per cent

of the cholecystectomy patients had their drains removed before the sixth day; none of the cholecystostomy patients had their drains removed before the seventh day. Only six per cent of the cholecystectomy patients had drainage persisting after the third week; whereas 20 per cent of the cholecystostomy patients were still draining. The average duration of stay in the hospital for the cholecystectomy cases was twenty-four days, while the cholecystostomy patients averaged thirty-five days (Table 3).

I do not mean to suggest that all cases of acute gangrenous cholecystitis should be subjected to cholecystectomy. There is a middle ground, of course, so well described by W. J. Mayo³⁶ in an editorial in 1924. The surgical treatment of this lesion must depend on the type and degree of inflammatory process and the patient's reaction to it. But when possible, cholecystectomy is the operation of choice.

MORTALITY

Mortality statistics gathered from the literature are difficult to evaluate because of the indefinite classification of acute cholecystitis. Most authors refer to acute empyema, necrotic edema, perforation of the gall bladder, and acute gangrenous cholecystitis when they quote surgical mortality statistics for acute cholecystitis. Bunnell³⁷ states that the mortality in acute cholecystitis is about 30 per cent. Dowling³⁸ has found it 27½ per cent. Judd and Lyons³⁹ reported forty-five cholecystectomies and twenty-two cholecystostomies for acute cholecystitis, with only one death. If the authors had limited themselves to acute gangrenous cholecystitis, the mortality would undoubtedly have been higher. I have not been able to find any data on this subject in the literature.

For this study I have grouped the mortality data under four heads:

- 1. The clinically acute cholecystitis.
- 2. The clinically subacute cholecystitis.
- 3. The surgical subacute cholecystitis.
- 4. The surgical acute gangrenous cholecystitis.

1. *The Clinically Acute Cholecystitis.*—There were eighteen cases of definitely acute cholecystitis in the first group that were not subjected to surgery. All these patients were acutely ill, with fever, leukocytosis, and localized right costal margin rigidity. These patients were treated conservatively by bed rest in the Fowler position, ice bags, and morphin. Four deaths occurred (mortality 22 per cent), two from ruptured gall

TABLE 3.—Acute Gangrenous Cholecystitis—Operative Results

	Hospital Stay		Drains Removed	Persisting Drainage	Average Hospital Stay
	15 days or less	30 days or more	6th day or less	3 weeks or more	
Cholecystectomy	18%	18%	41%	6%	24 days
Cholecystostomy	0	50%	0	20%	35 days

TABLE 4.—*Acute Cholecystitis—Mortality*

Pathology	No. of Cases	Operative Procedure	Mortality	Cause of Death
Clinically advanced acute cholecystitis	18	None	4 (22%)	2 ruptured gall bladders 2 ruptured gall bladders (?)
Acute abdomen? Gall bladder	9	Immediate exploratory	1 (11%)	1 ruptured gall bladder with advanced cancer pancreas
Clinically subacute cholecystitis	40	None	2 (5%)	1 ruptured duodenal ulcer 1 hemorrhage into thymus 3 cholesterol stones
Acute on a ch. chol. Acute hydrops Acute empyema Perforations (2)	9	Immediate cholecystectomy	0	
Subacute on ch. chol. Subacute hydrops Subacute empyema "Normal" gall bladder	30	Cholecystectomy Not immediately	1 (3%)	1 pneumonia
	1	Exploratory	0	
Acute gangrenous cholecystitis	38	Cholecystectomy 22 (18%) Cholecystostomy 16 (37%)	10 (26%)	

bladders and two supposedly from ruptured gall bladders not proved by autopsy.

There were nine acute abdomens in this first group, none of which were definitely diagnosed cholecystic in origin, preoperatively. One of these patients died from a ruptured gangrenous gall bladder superimposed on an advanced carcinoma of the pancreas (mortality 11 per cent).

There were sixteen cases of clinically acute cholecystitis in this first group that did not seem severe enough to require immediate surgical intervention. Most of these patients were operated upon a week or so later. There was no mortality in this group.

2. *The Clinically Subacute Cholecystitis.*—There were forty cases of clinically subacute cholecystitis in the second group. None of these patients were operated upon. Two deaths occurred, one from ruptured duodenal ulcer, undiagnosed. The other death was that of an infant of three months of age that seemed to have a subacute abdominal lesion. She died of a hemorrhage into the thymus. The abdomen was normal except for three faceted cholesterol stones in a thin-walled inflammatory-free gall bladder (mortality five per cent).

Six of the patients left the hospital complaining of more or less vague abdominal distress, or the x-ray showed "diseased gall bladders," and they were considered clinically unimproved even though they had been relieved of their acute distress. The remaining thirty-two patients were dismissed as improved.

3. *The Surgical Subacute Cholecystitis.*—The third series consists of a group of forty cases considered acute cholecystitis and operated upon within twenty-four hours after admission into the hospital. Nine of these were definitely acute exacerbations of chronic cholecystitis, empyema, or hydrops with fibrin coating the serosal surface of the gall bladder but not showing any diffuse gangrene. Two of these had perforated

with localized abscesses adjacent. Cholecystectomy was performed in all of the nine cases without mortality.

There were thirty cases of subacute cholecystitis or subacute exacerbations of chronic cholecystitis, empyema, or hydrops that clinically seemed acute. Laparotomy was performed in all of these with one death (mortality three per cent). That patient had a subacute exacerbation of a chronic empyema with stones, and died on the fourth day postoperatively of pneumonia. One patient in this group was operated upon for a clinically acute cholecystitis, but the gall bladder was grossly normal and no other abdominal pathology could be found. This patient was "not improved."

4. *The Surgical Acute Gangrenous Cholecystitis.*—The mortality in the fourth group was, of course, the most interesting. There were thirty-eight patients in this group, all operated cases of acute gangrenous cholecystitis. There were ten deaths (mortality 26 per cent). This rate compares favorably with the group of eighteen clinically acute cholecystitis patients who were very ill and not operated upon where the mortality was 22 per cent. These latter patients were treated conservatively in conformity to the opinions of many surgeons who advise conservative treatment for all early acute gall-bladder lesions. If these patients could have been brought into the hospital earlier in the course of their biliary disease, many of them would have been operated upon, for some were moribund on entrance. Others were considered early perforations with localized peritonitis and they were treated conservatively until the inflammatory process could be walled off. It is impossible to estimate the type of pathology present in these eighteen cases except for the four patients who died. Two of these were proved ruptured gall bladders with areas of patchy gangrene, and two were presumably acute gangrenous cholecystitis, but not proved by necropsy.

TABLE 5.—*Acute Gangrenous Cholecystitis—Mortality*

Operation	No. of Cases	Days or Hours Postoperative	Cause of Death (Autopsy)
Cholecystectomy	1	1 day	Pericarditis with effusion
	1	2 days	Pericarditis with effusion
	1	1 day	Pericarditis with effusion and bronchopneumonia
	1	3 days	Pulmonary edema and multiple abscess of liver
	1		
Cholecystostomy	1	2 hours	Bilateral pyothorax
	1	12 hours	Acute dilatation heart; peritonitis
	1	3 days	Peritonitis
	1	6 days	Obstructive jaundice, common duct stone
	1	7 days	Pneumonia
	1	12 days	Common duct stones, enteritis and fatty heart

The remainder were presumably not gangrenous and probably not perforations inasmuch as they recovered.

The thirty-eight cases considered in the fourth group, however, were proved cases of acute gangrenous cholecystitis subjected to surgery, and the mortality in these is considerably less than might be expected. This mortality rate is almost wholly due to delay, for if these patients had been seen earlier by a surgeon, most of them at least would have been operated upon much sooner. They add a plea for early intervention in acute cholecystic lesions. I believe that conservative, nonoperative treatment is advisable in all cases of acute gall-bladder disease provided the patients be under constant surveillance. The majority of acute biliary disturbances are not operative, and those that are can be best handled in the subacute stage. But a certain group, of which these thirty-eight cases are the outstanding examples, will need immediate surgical intervention. This group can be distinguished from the previously cited cases of acute and subacute cholecystitis only by constant surgical observation.

The patients on whom a cholecystostomy was performed were as a rule more acutely ill than those that had a cholecystectomy. That accounts for the difference in the mortality in these two groups; for the former was 37 per cent while the latter was only 18 per cent. We cannot conclude from this data that cholecystectomy is the operation of choice for acute gangrenous cholecystitis, but these facts coupled with others previously given warrant serious consideration in favor of cholecystectomy.

The cause of death in the ten operated cases of acute gangrenous cholecystitis was established by autopsy, and is given in Table 5. Two patients died of pericarditis with effusion; two of bronchopneumonia, in one of whom it was recognized before surgery; one of pulmonary edema; one of bilateral pyothorax; two of peritonitis; and two of liver insufficiency secondary to common duct stones.

SUMMARY

1. There are two schools of therapy for the treatment of acute cholecystitis—the radical and the conservative.

2. The attitude of seven local surgeons has been definitely conservative.

3. One and a half per cent of the admissions to the San Francisco Hospital were for cholecystic disease; 31 per cent of these were operated upon.

4. Seventeen per cent of the hospital admissions for cholecystic disease were for acute cholecystitis. Twenty-three per cent of these (thirty-eight cases) were proved cases of acute gangrenous cholecystitis.

5. Gall stones were present in only twenty-eight of the thirty-eight gangrenous specimens.

6. The present attack initiated the first symptoms of cholecystic disease in eight of the thirty-eight patients.

7. A diagnosis of acute cholecystitis was made in all but six of the thirty-eight patients.

8. All but one were operated upon within a few hours after entrance into the hospital.

9. Cholecystectomy was performed in twenty-two cases and cholecystostomy in sixteen.

10. The duration of convalescence and the time spent in the hospital were considerably less for the cholecystectomized patients.

11. The mortality in nonoperated acute cholecystitis cases was 22 per cent.

12. There was no mortality in sixteen patients that were operated upon a few days after the acute symptoms had subsided.

13. The mortality in forty nonoperated cases of subacute cholecystitis was five per cent.

14. There were no deaths in nine surgical cases of nongangrenous acute cholecystitis.

15. The mortality in thirty-eight cases of acute gangrenous cholecystitis was 26 per cent.

CONCLUSIONS

1. The treatment of acute cholecystitis should be conservative if the patient is under constant observation.

2. Immediate surgical intervention is indicated if the patient does not respond to conservative hospital care.

3. There is a need for a better classification of acute cholecystic disease.

4. Acute gangrenous cholecystitis may be the primary and initial manifestation of biliary disease.

5. Gangrene of the gall bladder may develop slowly without manifest signs.

6. Cholecystectomy, when possible, is the operation of choice for acute gangrenous cholecystitis.

Four Fifty Sutter Street.

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DISCUSSION

STEWART LOBINGIER, M. D. (716 Merritt Building, Los Angeles).—It is exceedingly difficult in the brief time allotted me to adequately discuss a paper of such outstanding merit. It will pass into the literature as a distinctive contribution and be widely quoted.

In any case of positive obstruction of the cystic duct there will be infection and edema. If the obstruction by any means is relieved, the edema will not go on to necrosis. When necrotic edema is well established it goes on to gangrene unless arrested by operation. True and complete gangrene of the gall bladder is extremely rare in this country—a tribute to early diagnosis. It is a lethal condition and should be wholesomely feared.

Many of the cases of so-called empyema associated with acute cholecystitis will subside and clear up if and when the obstruction in the cystic duct is relieved. The pus drains away and symptoms of infection disappear. But if this pathologic cycle is oft-repeated, as it may be, the gall bladder wall may become greatly thickened from hyperplasia between the mucosa and muscularis. Necrotic edema never occurs in such a gall bladder because the arterial distribution is too well protected from pressure in the cystic duct. There may be a succession of acute infections of such a gall bladder without ever passing on to necrotic edema or gangrene. In all cases of acute cholecystitis, where the clinical symptoms indicate necrotic edema as the probable issue, we feel we do not dare to temporize, but operate promptly, draining the edematous and infected liver through the gall bladder antrum and cystic duct.

But if the surgeon knows his patient has simply acute catarrhal cholecystitis or acute so-called empyema of the gall bladder, we agree with the author that we may wait, for these conditions may and frequently do subside and the patient recovers from the attack without operation.

We find some difficulty, however, in this admirable study of acute gall-bladder infection, in the acceptance of the large number of thirty-eight cases classified as acute gangrenous cholecystitis, a difficulty which the author himself recognizes in the early portion of his discussion; we agree with him that this must be due to "the variations in classification and the personal element in interpreting the pathology of acute cholecystitis."

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O. O. WITHERBEE, M. D. (909 California Medical Building, Los Angeles).—Doctor Mentzer's paper on acute cholecystitis and its surgical treatment, presents a subject of great interest and one which cannot be briefly discussed in all its phases.

The consideration of greatest importance is that of diagnosis. Clinical manifestations are often misleading, and even though they seem, in most cases, to accurately correspond with pathologic changes, we usually hesitate to go on record further than to recommend either a period of observation or immediate surgical interference.

Granted, that we have a case of cholecystitis, the question immediately arises: "Is it an acute condition or an acute exacerbation of a long-standing inflammatory process?" Patients, half in fear, are often very reticent in giving us a complete history. Negative answers are frequently given, only to be contradicted later on, after a successful surgical procedure has been done. The character and duration of symptoms are often too varied to make a positive diagnosis, while the x-ray and laboratory findings are as a rule only suggestive. The clinical manifestations must be our guide whether these are, or are not, supported by the laboratory, the x-ray, or even the history itself.

A definite surgical abdomen calls for immediate interference, which must be undertaken unless the patient is moribund; otherwise a period of observation, with a most careful analysis, should be advised.

Doctor Lobingier, in his discussion, says, that if the surgeon knows his case is simply acute cholecystitis, he agrees with the author, that we may wait; in other words, were it possible to visualize the pathology in every case of acute cholecystitis, its diagnosis and treatment would at once become classic.

In Doctor Mentzer's series he mentions eight cases of gangrenous gall bladder in patients who vigorously denied ever having any stomach trouble or other symptoms suggestive of biliary disease. The majority, however, had gastro-intestinal distress for many years, and most of these had the characteristic signs and symptoms of cholelithic disease for long periods. The doctor is certainly to be congratulated on his ability to correctly diagnose thirty-two of the thirty-eight cases he mentions. A case demanding immediate operation is usually regarded as a surgical abdomen, and the word "exploratory" modifies in a measure the feeling of responsibility that rests upon the surgeon at such a time.

I was recently called by Doctor Churchill to San Diego, in the night, to the bedside of my own brother who had very suddenly developed an acute abdomen. He was a very sick man. A terrific pain had struck him in the upper abdomen that evening. Except for an attack of angina three or four years before, he had not the slightest indication of impaired health. At the time, we found him with abdomen distended, muscles rigid, pulse quickened, temperature elevated, and with a leukocytosis of 36,600. What was to be done? Plain enough. Exploratory. What did we find? A phlegmonous gall bladder surrounded by a plastic exudate, bathed in a creamy pus. He is here this afternoon, is seventy-six years old, and will stand up for your inspection.

✱

HAROLD BRUNN, M.D. (384 Post Street, San Francisco).—Doctor Mentzer has done for us a great service in collecting this group of cases and in gathering together the literature on this subject. It is necessary that we from time to time look back upon our difficulties and evaluate our results.

As I have seen this disease, it appears to me that there are two distinct types of cases which lead to gangrene of the gall bladder.

The one type is due to a sudden blockage of the arterial supply and may come on during the course of even a mild gall bladder attack.

The other type is the result of a virulent inflammation of the gall bladder walls which causes gangrene and necrosis as a result of blocking of many capillaries, but is not in the same sense a thrombosis of the main stem.

In this latter case I feel that mistakes are not so likely to be made as the symptoms are fulminant, the patient is very ill, the acuteness of the disease does not brook delay, and the surgeon is forced to operate

on account of the severity of the symptoms. In the other type of case the indications are not so evident. The easy onset and perhaps the sharp pain which comes on at the time of blocking of the artery may pass off into a period of apparent quiescence, because sudden gangrene of the gall bladder, as in certain cases of gangrene of the appendix, may for a period of time give very few symptoms, and the laboratory findings are also not at all in line with the picture that one sees upon operation. It is in this type of case that mistakes can easily be made.

The policy of delay which most surgeons adopt in caring for cases of acute cholecystitis carries with it a very considerable danger, and one should always be on guard in recommending such delay, having in mind the possibilities of a gangrene due to a thrombosis of an artery.

As to treatment, we believe that, other things being equal, it is preferable to remove the gall bladder, but we have no hesitancy at any time in individual cases, because of the serious condition of the patient or the technical difficulty of the operation, and especially in the face of a streptococcal infection, to avoid a major procedure and be satisfied with a cholecystotomy.

There are many interesting points in the summary which Doctor Mentzer has drawn up which are well worthy of study. I believe he has stated very tersely the principles on which our judgment is based at the present time.

INDIRECT TREATMENT OF A PRESUMABLY SYPHILITIC CHILD BY MATERNAL THERAPY DURING LACTATION*

REPORT OF CASE

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AND

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DISCUSSION by Harry E. Alderson, M.D., San Francisco; Ernest Dwight Chipman, M.D., San Francisco; H. J. Templeton, M.D., Oakland.

ON February 3, 1927, a woman, age forty, presented herself at the Santa Rita Clinic, stating she was pregnant, approximately the eighth month, and that she was "frightened for the child because the two other children got sick after they were born, and there was something wrong with their teeth." The clinic records showed that this woman had been given a short and spasmodic course of antiluetic treatment eighteen months previously. It was later learned that she would not attend regularly, and that her children had also been under treatment for congenital lues.

REPORT OF CASE

Maternal History.—Married at nineteen years in Bucharest. Six weeks later developed primary lesion. Was treated at the hospital "by needle, in the buttocks, for thirty days." Sore healed. She stated this form of treatment was the regular system in vogue in Bucharest at that time. Returned home, and soon became pregnant. An abortion followed at the fifth month. Some time later again became pregnant. Child was stillborn at the seventh month. The husband was informed that he had syphilis, but refused treatment. He died after having been married two years, of (?) paralysis. Approximately two years after the thirty-day treatment in the hospital, she took six weeks of mercury rubs at home once a year for five

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years. She remarried seventeen years ago and had no further treatment. She became pregnant and was delivered of a baby girl at full term who seemed healthy until three weeks old, when she had "a rash on the buttocks and colds in the head." Was given some salve to apply (not a rub) and it gradually cleared up. Nothing further was noted until at about one year of age the teeth began to get black and early rotted away. No new teeth appeared until child was seven and one-half years old. These were small and did not grow. Child was apparently well until three years ago, when her blood was examined and gave a four-plus reaction. Two abortions followed this child, both at the third month. Then she was delivered of a full-term child, seven years after birth of first child. This baby, from the description, was hydrocephalic and lived only twenty-four hours.

Two years later a full-term male child was born, approximately nine years after birth of first living child. This baby was perfectly well at birth, but at six weeks developed a cold in the head and an eruption on palms and soles of feet, which was not diagnosed for some four months, when treatment was instituted. The child's Wassermann was four plus at this time. The mother and child then began treatment which was kept up in irregular fashion for some six months. From October 1923 to May 1924 the mother had a total of eleven neosalvarsans. Following this she had no treatment. Her blood Wassermann August 20, 1925, was plus-minus. On February 3, 1927, her Wassermann was plus-minus.

It was decided that we would administer intramuscular therapy rather than intravenous at this stage—the eighth month of pregnancy. We therefore gave her three intramuscular injections of salicylate of mercury, grains one, at weekly intervals. About four weeks later patient returned with an apparently healthy child, which had been born on March 4, 1927.

At this time, in the face of no slight degree of criticism, we commenced the indirect intravenous therapy, using neoarsphenamin alone, as we lean favorably toward the conclusions of Schamberg,¹ namely, that there is relatively much less danger of toxic manifestation when one uses arsphenamin alone than when one combines it with the use of mercury.

The mother was given 0.15 gram of neoarsphenamin, increasing to 0.6 the fourth week, and thereafter the regular weekly treatments of 0.6 neoarsphenamin were given for nine months. Following this, weekly treatments of intramuscular sulpharsphenamin were given for five months. During this time she experienced no distress and felt quite well. She was fortunately able to nurse the baby during the entire time. Weaning was done gradually, supplementing her regular meals with the breast feeding until she was about fourteen months old. During this entire time it will be noted the mother was receiving medication. The child's serologic reaction at periodic intervals has remained negative. The mother's Wassermann has remained plus-minus throughout.

Synopsis of Pregnancies and Therapy.—A synopsis presents the following facts:

Mother acquired syphilis at nineteen years of age.

Thirty-day intramuscular therapy.

First pregnancy: abortion fifth month.

Second pregnancy: stillborn seventh month.

First husband died.

Six weeks' mercury rubs once a year for five years.

Third pregnancy (by second husband). Full-term living child, syphilitic.



Fig. 1.—First living child. Female. Age, sixteen years. Wassermann, four plus.



Fig. 2.—Second living child. Male. Age, seven years. Wassermann, four plus.

Fourth pregnancy: abortion third month.

Fifth pregnancy: abortion third month.

Sixth pregnancy: full-term male child, syphilitic, living.

Seventh pregnancy: full-term living male child; hydrocephalic. Lived twenty-four hours.

Eleven neoarsphenamins over period of eight months, then no treatment until February 3, 1927.

Eighth pregnancy: full-term living female child, nonsyphilitic.

Report on Condition of Child at Two Years of Age.—The following is the report by Dr. M. J. Scholl on the child at two years of age:

Birth History and Development.—Approximately ten days premature. Cephalic presentation with easy, normal labor. Baby cried instantly after birth. Entire left side of the body was "blue and cold" for two weeks. The mother had bronchitis at the time of delivery and the baby contracted an upper respiratory infection from her which lasted three days. Birth weight, eight pounds. At six months, eighteen pounds. At one year, twenty-one pounds. No history of snuffles, skin rash, fissures, or condylomata. Dentition began at eleven months. Lateral incisors were cut at thirteen months. First molars at twenty months. She sat up alone at eight months, walked at ten months, talked at eighteen months.

Feeding.—Breast-fed exclusively for approximately nine months. After this had various additions to diet until she is now on a general diet.

Diseases.—Has never been ill.

Habits.—Appetite has always been good. No constipation or diarrhea. Sleeps quietly. No urinary symptoms. Good-natured, placid disposition.

Physical Examination.—Height, 34 inches. Weight (stripped), 26¼ pounds. Normal weight, 27 pounds. Temperature (rectal), 99. Pulse, 92. The patient is a well developed, well nourished female child of healthy appearance, and bright mentally. Posture is excellent. The skin is soft, smooth and free from rash. There is no evidence of rhagades. The mucous membranes of nose and mouth are pink and healthy. Eyebrows are thick. Eyes: Pupils are equal and react to light and accommodation. No scars are present. Nose: Contour normal. There is a slight serous nasal discharge present in the anterior nares (child contracted cold one week ago). Mouth: Twelve teeth are present; normal shape and intact enamel. No caries. Tonsils: Grade 2 (on basis of grades 1 to 4), cryptic and slightly injected. A small amount of mucus is present on the posterior pharyngeal wall. Ears: A small amount of cerumen is present in the canals. The drums are white and glistening. The light reflex is present. Glands: The lymphatic glands in the anterior cervical triangles are the size of small peas, and firm. Other cervical glands are not palpable. The axillary, inguinal, epitrochlears, are not palpable. Chest: Contour normal. No Harrison's grooves or rachitic rosary felt. Lungs: Equal expansion on both sides with normal tactile fremitus. Percussion note is resonant throughout. Breath sounds are clear. No adventitious sounds. Heart: Borders are within normal limits. No thrills. Valve sounds are clear and of good quality. Rhythm is normal. Abdomen: Soft

and not protuberant. No tenderness is elicited. Liver and spleen are not palpable. No masses can be felt. Genitalia: Externally no inflammation or discharge is seen. No genital malformations. Anal orifice is smooth. The sphincter is normal. No growths or scars are present. Extremities: There are no skeletal deformities. The joints function properly. The nails are present, smooth and of normal contour. The spine is negative. Reflexes: All reflexes are present. Babin-ski is negative.

Impression.—A child of normal physical and mental development for her age—two years—with no evidence of congenital syphilis.

COMMENT

An attempt to recapitulate the various considerations for the justification of our method of procedure, which to some of our colleagues has seemed somewhat lacking in foundation, is beyond the scope of this paper. It is therefore our purpose, insofar as we are able, to confine ourselves to the most salient facts concerned, and to attempt to consider fairly and in as concise a measure as possible, the conflicting opinions of others.

Primarily, we are confronted with a woman in the eighth month of pregnancy. Her history and the physical stigmata of her only living children all prove her to be syphilitic, and while we are aware that both the mendelian and the mosaic theories are far from being applicable in the case of syphilis, we have nevertheless some small degree of reason to believe that the child will not escape the disease. As the mother has been afflicted for a lengthy period of time, it may be in order to recall the opinion of Kassowitz,³ who stated that "the virus of syphilis gradually becomes attenuated." Many other observers of great clinical experience express themselves as dissatisfied with these conclusions (Gammeltoft,² Buschke,⁴ Rasche,⁵ Nobel⁶). Gammeltoft,² in a recent article, cites two cases in a series, one born ten years and the other twenty years following infection. Both of these mothers were treated intensively with salvarsan and mercury in the first years following infection, but had had no recent therapy. Assuming, therefore, that this child is a potential syphilitic, what justification have we in not treating both the mother and the child directly as we were advised, and as has been done in most instances in the past?

Concerning this situation, we find that various authorities have widely different opinions. There

are some who advocate that every child of syphilitic parents should receive direct treatment, even though they do not present any evidence whatsoever of syphilis. Others advise treatment only in the case of children born of mothers with recent syphilis, though they show no signs of the disease. Others again, and among them Gammeltoft,² Ahmann,⁷ and Almkvist,⁸ who believe that suspected children should not be treated before they show clinical signs of the disease or manifest a positive Wassermann; but that they should be constantly under observation. In Gammeltoft's² series of ninety-eight cases treated by salvarsan during pregnancy, only nineteen of the children showed evidence of lues, seventy-nine being apparently healthy, and remaining so.

Almkvist⁸ states: "It has always been considered unscientific procedure in cases of acquired syphilis to start treatment before definite symptoms establish the diagnosis, and I cannot see that this procedure is less scientific simply because it involves little children instead of adults."

The results of intensive and direct therapy on the congenital syphilitics in our hands has left much to be desired. In some instances, in the reluctance of serological change; in others, in the recurrence of evidence of activity following rest periods. These findings are upheld by clinicians of much greater experience. Leonard Findlay,⁹ whose opinion is both valuable and conservative, states: "The treatment of congenital syphilis is, if not a failure, at least a great disappointment." The consensus of opinion appears to bear out Findlay's conclusions.

TOXICOLOGIC ACTION OF CERTAIN DRUGS

We shall now consider a phase of the situation which has received but scant consideration, *i. e.*, the toxicologic action of the metals employed. For some time previous to the experiments of Kolmer and Lucke,¹⁰ it had always been a debatable question at postmortems as to whether the disease or the metal was responsible for the parenchymatous degeneration found in essential organs. These men demonstrated that arsenic and mercury, even in small doses, produced degenerative changes in the organs of normal animals. Schamberg,¹¹ in a consideration of the above experiments, states: "Both arsenic and mercury administered in therapeutic doses bring about structural alterations in organs, arsenicals affecting the liver, suprarenals and blood vessels, mercury having an affinity for kidneys and brain. Syphilitic treatment requires repeated use of these drugs. When used with circumspection, harmful results may be avoided. When used otherwise, unfortunate results may take place. Fatalities

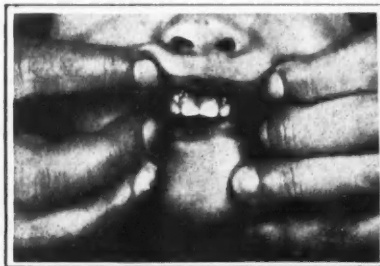


Fig. 3. Third living child. Female. Age, two years. Wassermann, negative. Milk-teeth structure only of interest in point of mother's statement that both previous children had delayed dentition with early necrosis and loss of teeth.

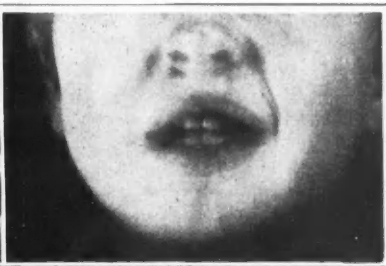


Fig. 4.—Same as Fig. 3.

have occurred after both arsenic and mercury. Many scores, if not hundreds, of deaths after mercury have been reported."

In this connection Brown¹² states: "The determination of toxicity of new compounds for experimental animals, insofar as duration of life is concerned, is insufficient, and the question of tissue injury has not attracted the attention that the subject deserves."

The degree of repair of the degenerative changes in these essential organs is fortunately sufficient in most cases to make the structural changes negligible in point of interference of perfect functioning, but we should not lose sight of the fact that any added strain upon those organs, which would undoubtedly ensue during a possible later intercurrent infection, would be attended by an element of grave danger. One is, we think, justified in wondering whether this early tissue damage might not be one of the factors which tend to produce the mortality percentage among the treated congenital syphilitics.

While some maintain, and we believe it reasonable to suppose, that a syphilitic would offer a greater degree of resistance to the metals than would a normal individual, we think we are justified in assuming early tissue damage in essential organs in the treated syphilitic child, the degree of damage being fairly proportionate to the dosage. We feel, in face of this evidence, that the method of body weight determination of dosage of the metals, while being well tolerated in an adult, is too crude in the case of a very young child.

In view of these opinions, we have felt that a Wassermann-fast reaction in a child following adequate therapy is scarcely sufficient justification for the continuous and sometimes intermittent long-drawn-out therapy which often obtains as a matter of routine.

It is well known that most drugs having a destructive effect upon a parasite exert a similar action, but in much lesser degree, upon the host. Therein lies the justification for their use, but if the pharmacologic action of a drug has been demonstrated to have very little effect upon the parasite over a measurably adequate period of time, and we feel that the toxicologic action is being continued, it seems illogical to prolong its use. The inclination on the part of some clinicians, in the face of no response is, unfortunately, not to stop therapy, but rather to increase it.

REASONS FOR INDIRECT THERAPY

This child after birth manifested no clinical evidence of lues, and this was supported by a negative Wassermann. We hesitated to assume the responsibility of not giving a possibly latent syphilitic treatment, though many able men advise that course of procedure. Conversely, we were just as reluctant about giving direct therapy, primarily because of our convictions regarding early tissue damage, and, secondly, because we would by so doing classify this infant for the rest of her life as a syphilitic. We therefore determined to treat the child indirectly, by administering arsenic intravenously to the mother during the

entire period of lactation, not only for the therapeutic effect of the arsenic, but also in the hope that some passive immune body formation might be supplied to the child, for it must be admitted that immune body formation, if it exists, must be highly developed in this mother.

The consensus of opinion seems to favor a direct spirocheticidal action on the part of the arsphenamin, and it denies the immune body formation theory. However, it would be well to remember that nothing is definitely known regarding the action of the arsphenamin in the body. Briefly considered, Voegtlin's¹³ theory is that the arsenic linkage is broken, and arsenoxid is formed. This toxic substance finds a physiologic antidote in the shape of reduced glutathione, a substance found in muscle tissue and liver. Arsenoxid combines with this substance, and is held back by the body tissues. Whether the arsenic is further oxidized to the pentavalent organic arsenicals is unknown, but it is presumed so, as all pentavalent organic arsenicals are rapidly eliminated by the kidney. The mechanism whereby arsenoxid destroys the spirochetes appears to be the same as the one responsible for the toxic effect of arsenoxid on mammalian tissue in the absence of unreduced glutathione, *i. e.*, an effect of the trivalent arsenoxid arsenic upon some sulphydril compound occurring in the spirochete.

Voegtlin,¹³ in a series of experiments has compiled much of interest in the matter, but rejects the theory of immune body formation on the grounds that six to eight hours is too short a period of time for their development, and arsenic injections have been shown to have spirocheticidal action within that time. The therapeutic action of the arsenicals, according to the above theory, is due to a chemical reaction—the effective lethal agent arsenoxid being prevented from harming the body tissues by (1) slowness of formation, and (2) its combination with the reduced glutathione of the tissues.

NONARSENICAL DRUGS

Before dismissing the matter and accepting this dictum as final, we must recognize that other substances differing widely in their composition, give somewhat similar results to the arsenicals in the matter of healing syphilitic lesions, *i. e.*, mercury, bismuth, iodid, and even protein injections. Though perhaps not so permanent in their effect, we have occasionally found the iodid salts given intravenously to have even more effective involuting action in the case of tertiary lesions than the arsenicals. Are we, therefore, to believe that all these various agents have a similar chemical reaction in the body?

ACTION OF THE DRUGS

It seems to be just as feasible to suppose that these agents destroy the spirochete by provoking or stimulating the body tissues to a relatively high immune body formation, as that it is due to destruction by direct chemical combination. To our minds, the time of production of immune bodies dates from the inception of the spirochete,

and the later injection of arsenic merely serves to increase them. V. H. Park,¹⁴ quoting Fisch and Stewart, states: "Seventeen apparently healthy infants failed to show any signs of syphilis, although their mothers were in the most contagious phase of florid syphilis. Immunization by way of placenta before birth, or by suckling afterward, will have to be accepted in these cases, according to the authors."

We must confess to leaning strongly toward the views of the minority and have a firm conviction that immune body formation plays an important rôle in the matter. If we correctly interpret the disease, every one of the various physical phenomena from primary chancre to tertiary lesions is merely an external and visible sign of the warfare which is being waged by the body. If one denies immune body formation, how does one account for the fact that the arsphenamins are useless in cases of malignant syphilis, or that the mother of these children has enjoyed good health all her life, and is today, as far as it is possible to determine, physically well? She has had, it is true, throughout the time she has been under observation, a plus-minus Wassermann reaction, but this we understand to be interpreted as negative, in the absence of other evidence. The only positive evidence we have that she is a syphilitic is that made manifest at every pregnancy, and in the stigmata of her two older living children. Many similar cases are known to you.

It was shown in 1838, by analysis, that the milk of women taking arsenic preparations contained arsenic. During that year Thompson, after a series of experiments on the physiologic action of iodid of arsenic on experimental animals concluded that arsenic was found in all the secretions; when administered during lactation, it furnished a convenient manner of giving it to infants at the breast through the milk of the mothers, and that when used internally for long it accumulated in the system.

One might claim that no therapeutic action follows oral administration. Schamberg¹¹ states: "The oral administration of arsphenamin was shown to be followed by absorption" and Kolmer^{10a} ranks the absorption of arsenicals administered by mouth as higher than that which follows rectal administration.

Fordyce, Rosen, and Meyer¹⁵ states: "The ingestion of milk from treated patients has raised this question in our minds, as to the possible therapeutic value of arsenic so received, and also its possible detrimental effect in producing a tolerance to arsenic on the part of the nursing child.

Noguchi and Klauder¹⁶ demonstrated a developing resistance to arsenic in both strains of pallida by administering very small doses of arsenic to rabbits, transferring the strain to other rabbits and gradually increasing, until a 68 per cent resistance to arsenic was obtained.

It would appear that we are justified in believing that direct therapy to the child, judging by the results obtained clinically, is ineffective in coping with a spirochete which has in most instances already been subjected to the action of

a comparatively higher dose of the metal while in a former host (maternal) and in all probability in a less resistant state.

And presuming that this increased spirochetal resistance obtained in this child, the difference in dosage, direct or indirect, would make but little difference to the end result unless, as we believe, passive immune body formation was also being supplied. In that case, if our conviction be correct, indirect therapy would probably prove the more efficacious. We do not presume to prove anything by this paper, as we start with an unknown premise. We have no means of knowing whether this child would have developed syphilis. We have known many cases of normal children born of syphilitic mothers that have remained so, but we think sufficient justification for its presentation lies in the fact that it offers a method of treatment for those who very rightly hesitate to subject an apparently normal child to direct anti-syphilitic medication, and yet are loath to refuse treatment in the face of the possibility of positive signs of syphilitic activity developing at a later date.

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DISCUSSION

HARRY E. ALDERSON, M.D. (490 Post Street, San Francisco).—We have been able many times to observe the benefit derived by the nursing syphilitic infant whose mother was given neoarsphenamin, and feel that it is a valuable method. Certainly, in this case reported by Campbell and Frost, no harm was done, and even though it is possible that the child might have remained well without the treatment, it was the duty of the physicians to make every effort to prevent future trouble. Delayed manifestations of congenital syphilis are only too common. At the Stanford skin and syphilis clinic we frequently treat pregnant syphilitics and we always administer neoarsphenamin and bismuth, continuing the same during the nursing period.

✽

ERNEST DWIGHT CHIPMAN, M.D. (350 Post Street, San Francisco).—This paper deals with a problem that is rich in both medical and human interest. The authors set up no claim that their solution is the only one or the correct one.

A syphilitic mother may, of course, begin with miscarriage at the first or second month, pass through progressively longer terms of pregnancy until full term syphilitic offspring issue. Finally, if persistent enough, she may bring forth full-term progeny free from clinical stigmata and serologically negative. It is such a case as this last that is under discussion.

There are three possible ways of meeting the situation, viz.: first, with direct, active treatment; second, with no treatment at all; third, with a compromise by indirect treatment through the maternal milk. In making a decision, the question largely resolves itself into this: Are we justified in the administration of toxic and potentially harmful substances into the circulation of any subject, adult or infant, on the mere presumption that he is syphilitic? My own view is that treatment should never be undertaken in the absence of both clinical and serologic indications, subject of course to the reservation, in the case of infants, that one is in duty bound to follow the case as closely as possible lest late, hereditary stigmata develop.

In this particular case, even though in the title the authors use the term "a presumably syphilitic child," I do not feel sure that the presumption of syphilis is justified. A subject is or is not syphilitic, and in the absence of both clinical and serologic evidence it does not seem to me that we are warranted in saddling a diagnosis of syphilis upon one even though his mother and "his sisters and his cousins and his aunts" are infected.

With respect to treatment the authors decided upon a middle course and whether the child would, or will, ever develop definite stigmata or positive blood reaction, we shall perhaps never know. It is noteworthy, however, that the physical findings at the end of two years revealed nothing which could be attributed to adverse result of treatment.

It would be interesting if in the treatment of frankly syphilitic infants the results of direct and indirect therapy might be compared not only with respect to serologic and clinical response, but to the general physical condition after two years or more of treatment.

The authors are deserving of praise for a paper rich in thought and philosophical flavor that should prove a stimulus to every one of us.

✽

H. J. TEMPLETON, M. D. (3115 Webster Street, Oakland).—The authors of this paper have given us considerable food for thought and at the same time have reopened the discussion of an old problem, viz., in regard to the desirability of treating an apparently normal child of a syphilitic mother. This question has been debated in dermatologic circles for many years, but we are still only able to say, as did Omar Khayyam, "and heard great argument, but evermore came out by the same door wherein I went."

The conservative school believes that, just as we never treat an adult for syphilis until a positive diagnosis has been made, we should never treat the child of a syphilitic mother until we can definitely prove that it has the disease. The authors followed this conservative course and their judgment would seem to have been vindicated by the excellent result which they obtained, the child being clinically and serologically well at the age of two years. And yet, one may be permitted to speculate as to what will happen to this child in future years. Stokes has said, "Infants who appear well and perhaps respond negatively to the earlier Wassermann tests may, in later life, under the influence of trauma, lowered resistance, and the onset of puberty, develop active and unmistakable signs of the disease."

It is my belief that no definite rule can be laid down for the treatment or withholding of treatment of the normal baby of a syphilitic mother. Each case must be determined on its individual merits. Thus, if the child has been born many years after the date

of the mother's infection, if her Wassermann is only weakly positive and she presents no clinical evidence of syphilis, and if she has given birth to other apparently normal children, one would be justified in withholding treatment. On the other hand, if the mother's infection is of a comparatively recent date, if her Wassermann is strongly positive, if she presents clinical signs of syphilis and has given birth to syphilitic children, I believe that her baby should be treated regardless of apparent clinical and serologic normality.

In the case which we are discussing, the mother's Wassermann was only weakly positive and she was apparently healthy. These two facts might influence us to withhold therapy. But when we note that every one of her seven previous pregnancies ended disastrously we must stop and ponder. I must confess that had I been confronted with this same problem, I would have regarded the baby as probably syphilitic and would have instituted prolonged treatment with bismuth and sulpharsphenamin.

✽

DOCTORS CAMPBELL AND FROST (Closing).—With reference to Dr. E. D. Chipman's observation:

We also feel that it would be of interest to utilize this mode of therapy on the frankly syphilitic child. Only in this manner could its value be determined, and while at the outset it would seem a very radical departure, the results of direct medication would appear to warrant it and are, without doubt, a justification for its trial.

One must realize at the outset, however, that this method has its limitations, namely, that the mother must be able to breast-feed the child; she must be able to tolerate the drug, and we would emphasize the necessity of keeping a careful and constant check on the mother during the entire time she is under therapy, stressing that she should report anything untoward that may occur, however slight it may seem. The length of time the mother has to be kept under weekly treatments constituted in our minds the greatest drawback to this mode of therapy. However, this patient tolerated the drug well for some fourteen months, and has been perfectly well ever since. This is a moot question, and to us one which time and experience alone can answer.

PEPTIC ULCER—ITS MANAGEMENT*

REPORT OF CASES

By GRANT H. LANPHERE, M. D.

Los Angeles

DISCUSSION by Frederick A. Speik, M. D., Los Angeles; Henry Snure, M. D., Los Angeles; Paul B. Roen, M. D., Hollywood.

THE management of peptic ulcer depends upon a careful consideration of its probable location, duration and complications.

Ulcers of the stomach and duodenum are fundamentally alike. Such differences as exist are due very largely to the complications peculiar to the stomach and duodenal location of the ulcer.

The cause of ulcers of the stomach and duodenum as they occur clinically has not been satisfactorily established. It is probable that there are many factors which predispose to their formation. Two of the more recent theories are a constitutional predisposition or an irritability of the autonomic nervous system associated with chronic oral sepsis, and foci of infection which are drained by the portal vein.

* Read before the General Medicine Section of the California Medical Association at the fifty-eighth annual session at Coronado, May 6-9, 1929.

SYMPTOMS

The symptomatology of well established ulcer is quite characteristic. The start is usually obscure, due no doubt to the fact that in the beginning and before the ulcer has eroded through the muscular and serous coats and involved the peritoneum, the disturbance is slight.

A detailed account of the distress symptoms as they appear during a usual twenty-four-hour period, is of vast importance. When ulcer is associated with the conditions essential to the production of clinical manifestations, subjective symptoms are often present in such characteristic form that a very probable diagnosis may be made from the clinical history alone.

The following facts are diagnostic of peptic ulcer, providing there are no definite or unexplained incompatibilities:

1. The distress of ulcer is absent when the stomach is normally empty.
2. The distress appears usually from one to three hours, and seldom as late as five hours after eating an ordinary meal. It seldom appears before breakfast unless complications are present.
3. The distress is as a rule completely relieved by food and alkalis.
4. It is associated usually with an adequate free hydrochloric acid content of the stomach. The epigastric distress, which may vary from a feeling of fullness or slight burning to severe pain, appears in attacks, lasting from a few days to a few weeks at one time, and recurring several times a year. During the interval between attacks, the patient is often free from distress. The duration of the ulcer may be from a few months to many years.

DIAGNOSIS

The diagnosis of peptic ulcer should involve a careful consideration of the distress symptoms that have caused the patient to seek relief and careful observation for the purpose of demonstrating the correctness of the clinical facts obtained by the history and physical examination. Thorough search should be made in every case for evidence of the complications and sequelae of ulcer.

Pyloric obstruction, whether due to pylorospasm with acute inflammatory swelling, or dependent on induration and callus formation, is the most common complication of peptic ulcer. Other sequelae of ulcer are hemorrhage, perforation, hourglass stomach, and malignancy. The roentgen ray examinations give the most accurate evidence of the location of ulcer, as well as the presence of its complications.

TREATMENT

Before instituting treatment in a given case of gastric or duodenal ulcer, a careful study should be made of the conditions that attend the ulcer. Whether the patient should be treated medically

or surgically depends upon a careful consideration of the clinical facts, and evidence of the complications of ulcer.

REPORT OF CASES

Pylorospasm with Peptic Ulcer.—The first case is presented to show evidence of pylorospasm. Very frequent causes of this condition, especially in young people are chronic colitis, chronic appendicitis and tubo-ovarian disease. The basic phenomenon underlying the symptomatology of peptic ulcer is pylorospasm.

CASE 1. T. R., a girl twenty years of age, complained of epigastric distress, constipation alternating with diarrhea, attacks of soreness in the region of the appendix and dysmenorrhea. The duration of symptoms was about two years. The important points of the examination were a hyperchlorhydria, occult blood in the feces, tenderness in the epigastrium over the appendix region and the lower right quadrant.

Clinically, peptic ulcer, colitis, and tubo-ovarian disease were evident. Roentgenologic study confirmed evidence of ulcer in the first portion of the duodenum, a considerable retention of gastric residue at the six-hour observation, and a segmented appendix.

Laparotomy was advised and the patient submitted to operation. Appendectomy, right salpingectomy and a cyst removal from the right ovary were done. Adhesions from a periduodenitis with some induration of the first portion of the duodenum were found. After the operation the patient was placed on ulcer management for nonobstructive peptic ulcer, consisting of three ounces of equal parts of milk and cream given each hour from 7 a. m. until 7 p. m. About fifteen to twenty ounces of bland foods were given morning, noon, and night.

Comment.—The control of the free hydrochloric acid is to be maintained from the beginning by means of insoluble alkalis such as calcium carbonate, tribasic calcium phosphate, and calcined magnesia; for excess of these beyond the needs of acid neutralization do not lead to development of free alkali. When such alkalis are employed without soda bicarbonate, alkalemia is decidedly less severe and the clinical symptoms of alkalosis are unlikely to appear, especially if the complication of obstruction or vomiting does not occur.

For the convenience of the patient, the powders are marked numbers one and two. Powder number one consists of calcium carbonate grains ten, and tribasic calcium phosphate grains twenty, given each hour from 7:30 a. m. to 7:30 p. m. Powder number two consists of calcined magnesia and tribasic calcium phosphate each grains ten, as needed or directed in number and as indicated by the consistency of the stool.

Thirty to forty minims of tincture of belladonna are given daily. Special attention and instruction are given to the patient in regard to the treatment of an associated constipation or diarrhea, and to prevent a bowel distress from too much magnesia.

If possible, the patient should remain at rest in bed for three weeks during the initial part of his ulcer management, and a careful study made

for focal infection. Oral sepsis is a very common condition.

Subsequent study of Case 1 by means of the roentgen rays revealed the stomach to function normally and no gastric residue at the six-hour observation. Patient is well and at work.

Management suitable for the obstructive type of ulcer differs from that of the nonobstructive ulcer in the following points:

1. In many cases a larger quantity of powder is required to control the free hydrochloric acid of the day secretion, and powders are given until midnight.

2. The best results are obtained by emptying the stomach at night with the stomach tube one-half hour after the last powder is taken. The greatest stimulus to an excessive night secretion is thereby removed.

Otherwise the management is the same as that used for the treatment of the nonobstructive type of ulcer.

CASES 2 and 3. Duodenal Ulcer with Partial Pyloric Obstruction.—G. D. and E. P., two women, one aged forty-six and the other aged thirty-five years respectively, had duodenal ulcers with considerable six-hour retention of gastric residue. Each gave a history of long standing epigastric distress, constipation, and evidence of foci of infection elsewhere in the body. The younger patient had an associated condition of hyperthyroidism, and a fibroid uterus, which was removed previous to the time the patient came for examination. No doubt there was considerable organic change and stenosis of the pylorus in each of these two patients.

They were treated at home, their stomachs aspirated at night. Subsequent study disclosed the deformity caused by duodenal ulcer to be present, but absence of tenderness over the cap, freedom from symptoms, and no retention of gastric residue at the six-hour study.

The prognosis is good in this type of ulcer if the patient will stay accurately on the management for months with frequent observation and supervision. This is the most common type of ulcer in patients between twenty and fifty years of age.

CASE 4. Duodenal Ulcer with Nearly Complete Pyloric Obstruction.—P. P., a man sixty-eight years old, had a peptic ulcer for many years with much callus formation and stenosis of the pylorus. The walls of the stomach were dilated, and there was evidence of hyperperistalsis with much gastric residue at six hours. It was possible to see evidence of peristaltic waves through the abdominal wall passing from left to right, and a small tumor in the region of the pylorus could be felt. Due to the fact that he was a poor surgical risk when first seen, the medical treatment of a peptic ulcer that is causing obstruction was given, namely; increase in the amount of each powder, removal of the gastric contents with the stomach tube after the last powder at night, and the routine ulcer management described above. The patient continued medical management for about three months, and because he continued to have nearly complete obstruction, laparotomy was advised, the patient consenting to the operation. Through a midline incision the stomach was noted to be very dilated, and there were adhesions binding the first portion of the duodenum to the pars pylorica. Palpation revealed a dense and

thickened pylorus with narrowed lumen, evidence of healed duodenal ulcer with scar formation. A posterior gastro-enterostomy was done and ulcer management for nonobstructive type of ulcer was given. The patient made an uneventful recovery, which was partly due to his preoperative preparation, and at present is comfortable and gaining in weight.

CASE 5. Duodenal Ulcer with Complete Pyloric Obstruction.—W. H., a man fifty-six years old, had a peptic ulcer for many years.

His symptoms were those similar to the patient of sixty-eight years (Case 4). Because he had a hyperchlorhydria, loss of weight, epigastric distress two to three hours after meals, and after midnight, occult blood in the stools, complete obstruction with much retention of gastric residue, laparotomy was advised. A pylorotomy was done. Subsequent to the operation medical treatment for nonobstructive type of peptic ulcer was given. The patient at present is comfortable, has gained in weight, and is at work.

Gastric Ulcer Complicated with Hemorrhage and Obstruction.—Gastric ulcer occurs in a ratio of about one to twelve, as compared to the frequency of duodenal ulcer. The treatment of gastric ulcer usually is that of medical management, especially if the ulcer is a recent one, less than one centimeter in diameter, and associated with a hyperchlorhydria. The treatment may be surgical, as one must be ever mindful of the danger of gastric ulcer undergoing malignant change. If it is a large, old, indurated, calloused ulcer, it is very unlikely that a cure will be effected by medical treatment.

CASE 6. C. P., a man fifty-four years old, gave a history of the classical symptoms of ulcer, just given, of many years duration. This patient had a severe hemorrhage nine years previous. Following this a laparotomy was done and the ulcer was removed from the lesser curvature of the stomach by cauterization. Later another ulcer developed near the pylorus with a return of nausea, gnawing epigastric distress, vomiting, hyperchlorhydria, gastric retention, and occult blood in the stools. Gastro-enterostomy was advised, but just previous to this procedure, before any type of treatment was given, the patient had another severe gastric hemorrhage. He was immediately placed on the medical management for treatment of acute hemorrhage from peptic ulcer, which consisted of the following:

1. Absolute rest in bed.
2. Adequate nursing attention.
3. Morphin sulphate to control restlessness.
4. Hourly doses of alternate powders of calcined magnesia and calcium carbonate in sufficient amounts to control the free hydrochloric acidity from the beginning. These preparations do not produce gas and the magnesia prevents stasis in the colon, of feces, blood, and the precipitated chalk.
5. Blood transfusion, to promote clotting at the site of the hemorrhage and to sustain the patient, may be given.
6. Later, ulcer management was given.

Comment.—In the great majority of patients with ulcer complicated by hemorrhage, the application of medical treatment for acute hemorrhage controls the bleeding, clotting is promoted, the hemorrhage ceases and occult blood rapidly disappears from the stool and does not recur while the patient is on accurate ulcer management.

A gastro-enterostomy was done on this patient, based on the following indications:

(a) A history of two severe attacks of hemorrhage.

(b) Nearly complete obstruction from pyloric stenosis and induration.

(c) No relief from an excessive continued secretion.

After the operation the patient was placed on the treatment of the nonobstructive type of ulcer management to promote the healing of the present ulcer and prevent, if possible, the recurrence of another ulcer. The patient was advised to have evident foci of infection removed. Subsequent roentgen-ray study showed that the new opening in the stomach was functioning normally with no retention at the six-hour study. The patient is now free of symptoms, has gained in weight, and is at work.

CASE 7. Gastric Ulcer Complicated with Malignant Change and Hemorrhage.—D. B., a woman thirty-two years old had epigastric distress for several years. Recently there had been a severe hemorrhage from the stomach. The application of the treatment for acute hemorrhage from peptic ulcer was given, and the bleeding stopped. The patient was subsequently examined and an ulcer was found in the lesser curvature of the stomach. There was no free hydrochloric acid in the stomach contents, a negative Wassermann, occult blood was present in the feces, and persistent pain while on accurate ulcer management. Operation was advised, a gastrotomy was done, and a tumor with two ulcers in the mucosa was removed from the posterior wall of the stomach.

Microscopic examination disclosed a sarco-leiomyoma of the round-celled and infiltrating type.

Comment.—According to the statistics of the Mayo Clinic, only one in two hundred gastric tumors is benign, and one in five hundred and fifty is a myoma. Persistent hemorrhage or occult blood in the stools, while the patient is accurately on ulcer management, is suspicious of malignancy.

CASE 8. Gastro-Enterostomy.—J. M., a man forty-nine years old, had a gastro-enterostomy in 1927 for relief of symptoms of many years duration. The patient was free from distress for only a short time. Then he began to have a recurrence of nausea, heartburn, belching, diarrhea, occult blood in the stool, and loss of weight. He was very irritable and nervous. Many ulcerated teeth had been removed.

Roentgenologic study disclosed a jejunal ulcer at the stoma which was painful under pressure. The distal portion of the stomach and duodenum appeared to be normal in outline and function. He was placed on medical treatment for nonobstructive type of ulcer, and was quite free of his symptoms most of the time.

However, there were periods of belching, sour stomach, and soreness in the region of the stoma. Two to five per cent of patients who have had gastro-enterostomy have a complication of a gastrojejunal or jejunal ulcer. If medical treatment does not affect a cure, the procedure of choice is to take down the gastro-enterostomy and close the stoma, providing, of course, that the pylorus is patent, and there is no evidence of chronic ulcer or obstruction at the outlet of the stomach. Due to mental disturbances, the patient here reported committed suicide three months after

he was placed on ulcer management, and necropsy revealed the jejunal ulcer in a subacute condition and in the process of healing.

Peptic Ulcer Complicated with Diverticula of the Duodenum.—The association of ulcer with diverticula of the duodenum is emphasized in many case reports. These may be congenital or acquired, they may be clinically silent, or may be the site of major pathology. Diverticula of the duodenum are found chiefly in the latter half of life, are acquired, and are often produced by the contracting scar of ulcer.

CASE 9. E. A., a woman aged seventy-two, complained of periods of heartburn, sour stomach, vomiting, and constipation during the previous twelve years. These attacks appeared regularly two to three hours after meals and were completely relieved by vomiting. There was frequently epigastric distress after midnight which was relieved by soda and vomiting of sour material.

The important points of the examination were a hyperchlorhydria tenderness and soreness in the epigastrium, constipation, and a paroxysmal auricular fibrillation.

Roentgenologic study showed a niche of the lesser curvature of the stomach, which was near the pylorus. The six-hour observation revealed a diverticulum of the second portion of the duodenum and one of the third portion. The former was tender under pressure.

The patient was placed on ulcer management for several months. Subsequent study and observation revealed the patient to be free of symptoms with absence of pain and vomiting, and enjoying good health. The heart condition was successfully treated with quinidin sulphate.

CONCLUSIONS

1. The symptoms of ulcer are completely controlled and relieved in uncomplicated ulcer.
2. Alkalosis is not likely to occur with the use of the insoluble alkalis.
3. Pyloric obstruction is influenced in the manner previously described.
4. Hemorrhage ceases and occult blood rapidly disappears from the stool and does not recur while on accurate management.
5. Gastro-enterostomy is the procedure of choice to relieve complete pyloric obstruction.
6. Medical management should follow surgical treatment for peptic ulcer.

1052 West Sixth Street.

DISCUSSION

FREDERICK A. SPEIK, M. D. (800 Auditorium Building, Los Angeles).—Although gastro-duodenal ulcers heal under proper medical treatment, we must be constantly on the alert for associated pathology. Intelligent observation, with frequent x-ray examinations, finds that the biggest and deepest ulcers gradually get smaller until they disappear, and the patient is symptom free. However, many cases in which lesions of the portal lymphatic system exist may have a return of symptoms or a recurrence of ulcer, because these lesions are foci of infection in the gall bladder or appendix.

Sippy stated that in order to treat peptic ulcer intelligently it is necessary to determine the age, the type, the location and complication of ulcer. It is

necessary to go further and determine if there are any lesions of the portal system, such as cholecystitis, appendicitis, pancreatitis, hepatitis, or peritoneal adhesions.

The taking out of an acute or chronic appendix does not cure the ulcer. Many appendectomies are done before an ulcer was discovered. This is one reason why patients do not always get well following an appendectomy. There is pathology elsewhere.

Patients with foci of infection in the portal lymphatic system should have them removed at earliest recognition. If physicians are on the alert for associated ulcer pathology, the diagnosis will be made more promptly and better end results will be had.

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HENRY SNURE, M. D. (1501 South Figueroa Street, Los Angeles).—The use of the roentgen ray in the management of peptic ulcer has been well covered in this presentation for each type of ulceration.

Another important condition, dealing perhaps more with the diagnosis of peptic ulcer than the management of same, has not been mentioned, namely, duodenitis. It should be considered before Case 1, as some investigators, Konjetzny, for instance, believe that it is the forerunner of peptic ulcer. On the other hand, Judd believes it to be a separate pathologic entity. The symptomatology of duodenitis is practically the same as that outlined for peptic ulcer in Doctor Lanphere's report; however, if the duodenum is opened and the mucous membrane inspected, no distinct ulcer is visualized. The mucous membrane presents a fine stippling, congestion and edema, usually over a small area; bleeding occurs easily on handling. The serosa is seldom thickened; occasionally small scar formation has been noted. Roentgenologically, the duodenal cap is small, difficult to fill and properly outline, and "writhing" is present. Also there is no constant niche present and no retention of barium meal in the stomach.

I would like to emphasize the point made by Doctor Speik, of the need of frequent examination to check up on the efficacy of the treatment and to aid in the search for associated pathology, particularly when the patient does not respond in the usual manner to ulcer management as outlined in the author's paper.

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PAUL B. ROEN, M. D. (1680 North Vine Street, Hollywood).—Inasmuch as the exact cause of peptic ulcer is as yet undetermined, the management of the treatment must be directed toward relief of the symptoms, and of other pathology, if found present, as has been indicated by Doctor Lanphere in his paper.

Peptic ulcers are very frequently associated with other pathology, particularly of the nasal sinuses, the teeth, the gums, and the tonsils, as well as the gastro-intestinal tract. The symptom complex may be due to irritative lesions of the gastro-intestinal tract producing deformity of the duodenal cap, or may be entirely functional. Either one or any combination of these factors may be present in the same patient, rendering a positive diagnosis almost impossible.

Regardless of the exact pathology, a percentage of patients with this hyperacid syndrome so characteristic of ulcer will recover on mental and physical rest treatment, combined with a bland diet and proper alkaline medication at frequent intervals.

The results of treatment frequently prove or disprove the diagnosis. If the treatment does not produce the desired relief, or should there be a recurrence of the symptoms, a further and more intensive study is indicated, to be followed in turn by appropriate treatment.

INJURIES OF THE UROGENITAL TRACT*

REPORT OF CASES

By BURNETT W. WRIGHT, M. D.
Los Angeles

DISCUSSION by Philip Stephens, M. D., Los Angeles; E. H. Crabtree, M. D., San Diego; Charles P. Mathé, M. D., San Francisco.

THE task of the urologist engaged in examining industrial accident cases is not always an easy one. He is rarely privileged to see these patients immediately after injury, when external, visible evidence of trauma is so often present, or when the immediate signs and symptoms of injury are in evidence to aid him in making a diagnosis. Aside from the exceptional, severely injured patient who requires immediate hospitalization, most of his industrial patients are seen in his office, days and often weeks after an alleged injury, with urinary complaints which only the patient himself, in most instances, attributes to his accident. He has nearly always received some treatment at the hands of others.

PROBLEMS CONFRONTING THE UROLOGIST

When, still complaining, he comes to the urologist, he brings two distinct problems: (1) Is pathology present in the urogenital tract or not? and (2) If present, did it exist prior to the injury or develop as the result of injury or occur subsequent to and entirely independent of the injury.

The patient's story cannot always be relied on. Some willfully and skillfully misrepresent the facts; others are entirely honest in the belief that the symptoms date from the injury, when it may later be proved that there was preëxisting pathology and that the condition was either aggravated by the injury or that the patient's attention, for the first time, was called to symptoms which he previously ignored.

The reports of the surgeons who first examined him or later treated him are of necessity often incomplete from a urological standpoint, because these men do not generally employ the diagnostic procedures used by the urologist, or possess the special equipment necessary for these examinations. To see blood being ejected from the orifice of a ureter, following injury, for example, is infinitely more valuable than to read or to be told that there was blood in the voided urine shortly after the accident. The task of fixing the degree to which trauma is a factor in this class of cases rests largely with the urologist therefore, for usually his information is based on the only urological examination made in a given case.

In suspected cases of injury to the upper urinary tract, seen remotely after the accident, usually nothing short of a complete urological study will suffice. This includes a plain x-ray of the kidneys, ureters and bladder, examination of voided urine, test for residual urine, cystoscopy,

* Read before the Industrial Medicine and Surgery Section of the California Medical Association at the Fifty-Eighth Annual Session, Coronado, May 6-9, 1929.

bilateral ureteral catheterization, collection of urine from each kidney with examination, perhaps culture or guinea-pig inoculation of the separate urines, a differential functional test and, at times, a pyelogram or pyelo-ureterogram. The value of these procedures is illustrated by the following case.

REPORT OF CASES

CASE 1.—Walter W., age thirty-one; occupation, moving-picture actor. Was referred on August 2, 1928, complaining of pain in the upper right quadrant. He stated that on June 5, 1928, while engaged in his occupation of making pictures, he was required to fall from a running horse and "play dead." After several such falls (for which he was paid at the rate of \$10 per fall) he felt a sudden sharp pain in the right lumbar region which persisted and caused him to be confined to bed until July 4, 1928. Since that date he had felt a constant soreness and tenderness on pressure over the right kidney. Since his injury he had had no urinary disturbance except an occasional nocturia of one to two times. Prior to his injury he had always been well. He had never passed blood in the urine.

Examination.—Examination revealed a palpable, movable, and tender right kidney, larger than normal. Voided urine was negative except for a few shreds in the first glass. The external genitalia were normal. No urethral discharge. X-ray showed no shadows. Kidney outlines were not clearly seen. There were multiple strictures in the anterior urethra, the smallest of which admitted a No. 14 French searcher. After dilating the strictures, a cystoscopic examination showed a moderately inflamed right ureteral orifice, but no other bladder pathology. No urine could be seen coming from the right orifice and no peristaltic waves were visible on that side. A catheter met a distinct obstruction in the right ureter, eighteen centimeters from the bladder, which could not be passed with the smallest filiform. A No. 6 catheter passed easily to the left kidney pelvis, without obstruction. No urine was excreted from the right side in twenty minutes. Urine dripped freely from the left side. Phenolphthalein injected intravenously appeared from the left side in four minutes, with 35 per cent excreted in thirty minutes. No dye appeared from the right side. The right ureter was injected with sodium iodid and x-ray made. There was a complete blockage of the ureter in the upper third, near the ureteropelvic juncture, with none of the fluid entering the pelvis of the kidney. The upper third of the ureter, below the obstruction, was distinctly narrowed.

Conclusions.—The conclusions were: a walled-off hydronephrosis, with neoplasm of the kidney to be considered. Nephrectomy was advised.

Subsequent Course.—The patient chose an osteopath to remove his kidney, and the operator reported to the State Compensation Insurance Fund on December 15, 1928 that he had removed a hydronephrotic kidney containing 720 cubic centimeters of purulent urine, with the outlet into the ureter completely blocked. His conclusions were that the condition was the result of the ureter having been torn, with the subsequent scar formation occluding the lumen and producing the hydronephrosis. The specimen was secured by the State Compensation Fund and examined by the Brem, Zeiler & Hammack Laboratory which reported a tumor involving the upper third of the ureter, which on section was a myoma, originating in the musculature of the ureter, obstructing its lumen. Liability was refused.

The urologist engaged in this class of work soon learns not to attach too much importance to a patient's description of his injury or the symptoms he enumerates. An example of how easy it is to be misled occurred with the following case.

CASE 2.—C. F., age fifty-one. Was referred on December 18, 1928. He stated that on November 5, while in a tree at work, he fell astride a limb, bruising the perineum. He felt considerable pain, was nauseated, but did not vomit. The first urine voided seven hours later contained blood. He noticed blood for several days, and on the fourth day the left testicle became swollen and exceedingly sore. On December 11, a competent surgeon reported him as having a ruptured urethra with urinary extravasation into the scrotal sac, with formation of an abscess, which he had drained. We found the left half of the scrotum was indurated and enlarged, with a small fistula in the lower portion. The urine was infected, and he voided with some difficulty. The prostate felt slightly enlarged.

We concluded that an incomplete rupture of the urethra had occurred, with extravasation, and considered it unwise to introduce an instrument into the bladder and recommended him for compensation. Soon after, a second urologist cystoscoped him, found a calculus impacted in the posterior urethra which had ruptured the canal by pressure necrosis and that extravasation had occurred. The prostate was adenomatous. Compensation was justly refused.

The commonest type of case seen by the urologist remotely after injury is the epididymitis for which a direct blow or a "strain" is given as the cause. In our opinion, trauma alone does not cause epididymitis. A careful examination of the secretions of the prostate and seminal vesicles will nearly always reveal a focus of infection which supplied the organism to tissue devitalized by trauma. Acute gonorrhea must be excluded.

We believe that the interests of the insurance carrier, the employer, and those of the injured employee who has symptoms referable to the urogenital tract, will be better guarded and the problems of the consulting urologist greatly simplified if the interval between the injury and the examination is reduced to a minimum.

1137 Roosevelt Building.

DISCUSSION

PHILIP STEPHENS, M.D. (1136 West Sixth Street, Los Angeles).—We have been very much interested in Doctor Wright's paper and the various points which he has developed therein. We note his insistence upon thorough routine examinations and his attempt to impress us with the fact that if certain features are omitted, or short cuts are attempted, that we will, in all probability, miss certain features which we will afterward regret; or which might tend toward the loss of certain points which would be useful in preventing us from making diagnostic mistakes so important in establishing the causal relationship of certain symptoms of the alleged disability.

One special point which we would like to have impressed upon general practitioners, employers, insurance companies, and others interested in this work, is the impossibility of so-called epididymitis, or conditions of this character, being caused by what is termed ordinary strain incident to strenuous work—that they are infectious in character and that the infection necessarily need not be the result of venereal disease. We who are more or less active in industrial practice see many such conditions which are, as a

rule, attributed to a lift or strain, and we feel that a better understanding or standard procedure of decision should be established among all concerned.

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E. H. CRABTREE, M. D. (706 Medico-Dental Building, San Diego).—I have taken a great deal of interest in Doctor Wright's paper, as I think it is very important to ascertain the cause of cases of epididymitis that present themselves to us in compensation work.

We all recognize the fact that an epididymitis cannot come from a strain unless there is infection of some sort present. But the thing that interests me most is the fact that in many cases we are given a history of a severe strain from lifting, which is followed by a swelling in the scrotum. The doctor must deal fairly with the company and with the patient, and it seems to me that in cases where there is no history of any venereal or other infection, it is hard to tell a man who is incapacitated because of a condition which has come on following a strain which occurred at his work, that it is not a compensation case. In other words, although he may have had some latent infection in his urogenital tract, it may not have been Neisserian in type, and whatever the infection was, the man was not cognizant of the fact.

I would appreciate a little more discussion on this point as to what the attitude of the Commission is in this type of case.

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CHARLES P. MATHÉ, M. D. (450 Sutter Street, San Francisco).—Doctor Wright has emphasized an important point in his paper in calling attention to the fact that the patient suffering from an alleged injury to the genito-urinary tract is often seen at such a late date that it is hard to determine the exact rôle that trauma has played in producing the pathological lesion in question. Although an injury will often call the patient's attention to an insidious pathological lesion that had already existed for some time, it often lowers the resistance of the injured organ or structure, making it susceptible to immediate or subsequent infection. Many urologists, notably Hagner, Brewer, Squier, and Rehn, in discussing pyelonephritis have emphasized the rôle of trauma in reducing the resistance of the kidney, making it more susceptible to even the mildest form of infection.

There is no question as to the etiologic rôle of trauma when there is a ruptured kidney presenting a large tear; lesser injuries, including contusions, slight tears, hemorrhagic exudation, etc., are often overlooked and are hard to determine by the methods of diagnosis now at our disposal.

The question of compensation in injuries of the genito-urinary tract is still confused. In order to arrive at a fair decision for the injured worker, employer, and insurance carrier, a careful study and correct interpretation of the pathological processes directly or subsequently resulting from injury should be made. Four types of cases present themselves: (1) Cases in which there is no question as to the trauma causing the signs and symptoms from which the patient suffers, e. g., ruptured kidney, ruptured urethra, ruptured bladder, etc. (2) Cases in which trauma causes no appreciable immediate bad effect but lowers the resistance of the organ or structure, making it more susceptible to subsequent infection, e. g., pyelonephritis, epididymitis, etc. This category would also include cases in which a slight tear in the urethra due to trauma caused no appreciable immediate harm but resulted in progressive, extensive, and damaging stricture formation. (3) Cases in which trauma will light up or cause a preëxisting pathological lesion to give immediate trouble. This group includes cases in which a stone was dislodged by a violent blow, the urethra containing a stone ruptured by sudden violence, the lighting up of a previous more or less nonactive tubercular process, etc. (4) Cases in which trauma has called attention to a preëxisting lesion in which it is reasonable to assume that trauma had played no part in the immediate symptoms. This

type is well exemplified by cases one and two reported by Doctor Wright.

Although immediate examination of the injured person by a competent urologist will establish the rôle of trauma in the production of the alleged pathological lesion, it renders no aid in ascertaining subsequent ill effects. The rôle of lowered resistance resulting from injury is the source of considerable debate and can only be determined by a thorough understanding of pathological processes of lesions of the organs and structures making up the genito-urinary tract.

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DOCTOR WRIGHT (Closing).—Concerning the question raised by Doctor Crabtree, and mentioned in Doctor Stephens discussion, the Industrial Accident Commission, replying to an inquiry from me, has written as follows:

"The Industrial Accident Commission has no fixed policy which it publishes to cover the question which you ask. The Commission feels, however, that inasmuch as some strain, accident, or misadventure, causes disability through lighting up or further injuring some defective part, there should be compensation, in part, at least.

"Infections of the prostate and seminal vesicles are very common, and may be present when there never has been any Neisserian infection. The workman is accepted as he is with his defects and weaknesses and tendencies to failure. Therefore, when in the presence of an infection and a strain precipitating a disabling condition, the Commission usually rules that the case is wholly or partially compensable."

GLAUCOMA—SOME SURGICAL CONSIDERATIONS*

By MAY TURNER RIACH, M. D.
San Diego

DISCUSSION by Frederick C. Cordes, M. D., San Francisco; Lloyd Mills, M. D., Los Angeles.

DUKE-ELDER expresses the hope that some day we may overcome glaucoma and cataract by physicochemical means. Some encouraging work is being done along this line, but I believe that operative interference will continue to hold its strong position for a good many years; and it merits all the thought and discussion we can bring to bear from every standpoint.

I make no claim for originality for any point raised in this paper, but the seriousness and prevalence of glaucoma and our present inability to master it may excuse one from apology in repetition.

I served an internship at the New York Eye and Ear Infirmary in 1918 and 1919. Dr. John E. Weeks and the late Dr. Robert G. Reese were active surgeons at the infirmary during my residency. Doctor Weeks did the Lagrange operation and Doctor Reese did his iridectomy almost entirely for glaucoma. As house surgeon I assisted at most of these operations and followed the end results of the ward cases, taking fields, visions and tensions; comparing the value of the Lagrange, as done by Doctor Weeks, and the iridectomy, as done by Doctor Reese. I considered each surgeon a master who had perfected his technique, and felt that their results would give a true estimate of the effectiveness of the two operations.

* Read before the Eye, Ear, Nose, and Throat Section of the California Medical Association at the fifty-eighth annual session, Coronado, May 6-9, 1929.

After close observation of these cases running side by side, I concluded that their percentage of successes was very high and about equal; and this conclusion is substantiated by the reports given below.

LAGRANGE OPERATION

In Doctor Weeks' report, given in *Archives of Ophthalmology*, May 1920, he states: "The Lagrange operation, which I have performed at least three hundred times, is relied on for the forms of glaucoma other than those reserved for the Elliot operation. The operation is performed as described by Lagrange except that the incision is seldom more than five millimeters long. The shorter incision is employed to avoid the danger of prolapse of the head of the ciliary body or of the lens into the wound, and to lessen the possibility of escape of vitreous. In this series of cases there has been deep intra-ocular hemorrhage twice. The opening has been occluded by the falling forward of the head of the ciliary body in four. There has been loss of vitreous in three cases. Hypertension has recurred to an extent to nullify the result in only four instances. There have been but two light cases of iritis and no case of late infection."

IRIDECTOMY OPERATION

Later I was office and clinical assistant to Doctor Reese and had the opportunity to follow up the end results of some of his private cases as well as the hospital ones.

Doctor Reese reported 237 iridectomies, which he performed on private patients for glaucoma; 172 noncongestive and 65 congestive. The report of his results and the technique of his iridectomy is described in detail in *Transactions of Section on Ophthalmology of the American Medical Association*, 1923. He states: "We have been successful in relieving the tension and restoring the vision that had not been destroyed by pressure atrophy in every case of congestive glaucoma in which we operated. In noncongestive cases the vision was kept *in statu quo* and the tension kept below thirty (Schiotz) in all but five of these which could be followed for any length of time, in these the tension remained about thirty-seven. In twenty-five noncongestive cases two iridectomies were performed, and in eleven three iridectomies had to be done before tension was relieved. There was not a single case of expulsive hemorrhage; this was accounted for by the fact that the aqueous was expelled drop by drop. In no case was the lens injured with the keratome, or was there loss of vitreous or the lens dislocated, nor did the head of the ciliary body prolapse or become adherent to the incision. Never was an anterior chamber found to be so shallow that it could not be entered with this model of keratome." (A special broad one bent at an angle of twenty-one degrees.)

It is to be remembered that Doctor Reese excised a piece of sclera from the anterior lip of the incision in all noncongestive cases.

When analyzed the Lagrange and the iridectomy as done by Doctor Reese in chronic cases

are practically identical operations in principle. In the former the knife moves from below upward, and in the latter from above downward. "The sclerectomy is the basic element of the operations," as stated by Doctor Weeks in a personal communication of recent date.

ELLIOT OPERATION

During my internship the Elliot operation was not generally practiced at the infirmary, and in the cases where it was performed the end results did not compare favorably with those of the two operations above discussed; but later in London, where the trephine was more frequently done than any other operation for glaucoma, I observed the technique and the end results of the trephine at the Westminster Ophthalmic and Moorfield hospitals, especially the work of Mr. Elmore C. Brewerton and Sir William T. Lister, and I learned that their results were as good as those of Doctors Weeks and Reese.

LISTER'S METHOD

I wish to quote five special points emphasized by Sir William T. Lister:

"1. In reflecting the conjunctival flap, take all the episcleral tissue with the conjunctiva that you can get, in order to make the flap as thick as possible.

"2. Make the corneal incision with a Tooke's corneal splitter.

"3. Raise the flap at right angles to the cornea and slide the trephine on as far as it will go in order that the aperture may be situated right up to the furthest extent of your incision.

"4. When trephining, place the trephine—in the first instance—symmetrically, but as soon as you feel it gripping and cutting, turn the hand over to your left in order that the disk may have a hinge and not be completely separated. Also I prefer to leave the stilette in the tube so that on removal of the trephine from the wound, you may tend to suck the disk out. (In order to prevent the disk getting into the anterior chamber. If it does I do not think it matters, but it is not so artistic.)

"5. In making the iridectomy, take hold of the iris as far *above* as possible and at its base, and then push downward in order to make an iridodialysis before cutting the buttonhole iridectomy."

The above is quoted from a personal letter to me recently received.

PERSONAL OBSERVATIONS

During the last ten years I have had under my care 487 cases operated upon for glaucoma. These occurred in New York, London, Serbia, Constantinople, and in Egypt. The end results of the work I did myself in the East did not compare favorably with that done in New York and in London, as mentioned above, except perhaps in the acute cases. I worked under great difficulties. Postoperative care and observations were necessarily far from satisfactory. At first in Macedonia, where I started my work abroad, I could not speak the language, and I had no assist-

ant trained in eye work. The work was overwhelming in amount. Much of the equipment had to be improvised. Visions and fields were taken by interpreters I trained myself, but the tensions, upon which I relied mostly, were carefully and repeatedly taken by myself (using the Schiotz). Some of my cases were under observation for a very short time; so that some of those labeled successes may very well have proved to have been failures if they had been under observation for a longer period. The cases were mostly of the acute, well advanced or absolute glaucomas. The end results were observed over a period ranging from two to six months in Serbia, and from two weeks to two years in Constantinople and in Egypt.

I did the Reese iridectomy almost entirely at first. In the noncongestive cases I removed a piece from the anterior lip of the scleral incision in its entire thickness with either the scissors or the punch. In absolute glaucoma, where the fields were very narrow or where there was very much cupping, I employed the Elliot trephine. I learned to refrain from doing the trephine where any inflammatory condition existed, as the opening often subsequently closed in.

In Macedonia there was no trachoma complicating, but later in Constantinople and in Egypt, where the complications of trachoma and purulent ophthalmia had to be reckoned with, I found the Lagrange and trephine easier to do than the Reese iridectomy. As time went on I did the trephine more and more, especially where I felt that after treatment would be neglected.

I have often employed the scissors to advantage in some cases where the anterior chamber was practically obliterated, e. g., as in adherent leukoma, making a scleral flap with keratome so that the opening into the anterior chamber is two or three millimeters in length—just large enough to admit the point of the scissors. In this way the lens can be more easily avoided. This is also useful in secondary glaucoma with a deep anterior chamber, where it is imperative to avoid a sudden gush of aqueous. This is done in a somewhat similar way as described by Luedde in his "winged" iridectomy incision.

In making each linear incision for glaucoma, I visualize the angle and direct the instrument that the anterior chamber may be opened into about 1.75 millimeter posterior to the limbus, in the medium-sized eye, so that the canal of Schlem may be entered in its posterior part, the pectinate ligament severed, and any adhesions of the iris separated from the cornea. The posterior scleral incision allows the iris to be detached at its junction with the ciliary body. In doing the iridectomy I tried to effect a dialysis by pulling the iris under tension to the opposite side as I made the cuts, as described by Doctor Reese. Gradually, with experience in these operations, my technique improved and my results also improved *pari passu*.

I wish to emphasize the importance of massage following the filtering scar operations. The tension may be regulated more or less by it. I begin

this gently on the third day after operation and continue it daily, as the case requires. The patient may be taught to do this at home. I believe that success in a large number of cases rests on the exercise of this point.

I have endeavored to compare the operations performed for glaucoma of similar type, viz., the noncongestive. After careful survey of the end results from my notes of such cases, I found that 83 Reese iridectomies with sclerectomy, 95 Lagranges (with the short incision as done by Doctor Weeks), and 118 Elliot trephines gave in my hands practically the same percentage of successes for each of the three operations, viz., from 65 to 70 per cent.

My belief is that the secret of success lies in the finesse of technique more than in the choice of operation.

SUMMARY

To sum up on broad lines, the operating surgeon in glaucoma must be prepared to perform two operations: In acute cases, a deep, broad iridectomy, after the type advised by Doctor Reese; and in the chronic ones some form of filtering cicatrix operation, and here I would advise the Elliot trephine. It is, in my opinion, easier to perform and carries less risk than any of the other filtering scar operations and the results are just as good.

If the surgeon concentrates on the technique required for these two operations, he is well equipped to deal with most cases of glaucoma which require operation.

1007 Medico-Dental Building.

DISCUSSION

FREDERICK C. CORDS, M. D. (384 Post Street, San Francisco).—Doctor Riach's paper gives a clear, concise résumé of the subject. As the author points out, the surgical consideration of glaucoma must be regarded under two separate headings: the acute and chronic forms of the disease.

In acute glaucoma, iridectomy has long been a satisfactory and well recognized procedure. The results in this operation are uniform the world over.

In chronic simple glaucoma various operations are done to produce a filtering cicatrix. It was very interesting to note that under the author's observation the Elliot trephine did not compare favorably with the Reese and Lagrange in this country, while in England the results with the Elliot were excellent. I agree with Doctor Riach that this is probably a question of technique. We have all had the experience of rather disappointing results in some new operative procedure until some apparently minute detail in technique was called to our attention.

One operation not mentioned by the author is iridotaxis. This, as done by Wilder, or the modification used by Gifford, gives results that compare favorably with the other operations. The simplicity and ease of performance are important factors in its favor. The iris is not wounded and for this reason there is less liability of hemorrhage. This is important in hemorrhagic glaucoma or in cases of high blood pressure. It should not be used, however, in an eye that has a developing cataract, for the misplaced pupil and iris would complicate the incision.

In glaucoma, following cataract extraction, I have found cyclodialysis very valuable and feel it is the best operation for this condition.

The selection of an operation producing a filtering cicatrix is largely a personal matter. The surgeon

should choose that one to which he is best adapted and which in his hands gives the maximum consistency.

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LLOYD MILLS, M. D. (609 South Grand Avenue, Los Angeles).—The fundamental surgical considerations of glaucoma seldom have been presented more clearly or practically than in this able paper. Doctor Riach's conclusions will meet with the approval of most eye surgeons. Three points are evident in the surgical treatment of glaucoma:

1. All glaucoma should be considered as surgical unless there is prompt therapeutic proof to the contrary, as in simple hypertension without involvement of the optic nerve.

2. The measure of importance in all the filtering-scar operations, whether Lagrange, Reese, or Elliot, is the sclerectomy and the correct formation of its covering flap of conjunctiva.

3. The art of the surgery of chronic glaucoma lies in the adaptation of the form and size of the sclerectomy to the surgical needs of the given case. The presence or absence of inflammatory and exudative changes in the anterior segment and of progressive degenerative changes in the optic nerve, regardless of the degree of hypertension, should determine the form of the operative measure.

I have seen so many of these glaucomatous eyes which have gone blind after inadequate measures that I have long ago given up the Elliot operation in severe cases, believing that the Lagrange, or the Reese operation with sclerectomy, offered the patient the best chance of the maintenance of sight and the mastery of individual hypertension. I cannot believe, out of my own experience, that the Elliot operation permits, as a rule, the breadth of opening of the filtration angle or the breadth and depth of the iridectomy which is necessary to be fully effective. If there is one place in ocular surgery where radicalism must enter it is in the cases of typical amaurotic excavations in glaucomatous degeneration. Accordingly, in the simple cases, my sclerectomy is made about as small as can be done easily with the Graefe blade, but in the cases showing progressive degeneration I use the full width sclerectomy as advised by Lagrange and believe that my results have justified the really minor risks.

It is well recognized that the relief of hypertension is the relief of only one part of the syndrome of glaucoma. The prevention or halting of the other important element, optic atrophy, very often follows the successful relief of hypertension. The cases yet to be mastered are those where the atrophy is progressive, regardless of the degree of reduction of ocular tension. The mastery of such cases probably will come through earlier diagnosis and earlier and more radical operation.

INDICATIONS FOR SURGERY IN PULMONARY TUBERCULOSIS*

By H. E. SCHIFFBAUER, M. D.
Los Angeles

DISCUSSION by Harold Brunn, M. D., San Francisco; William B. Faulkner, M. D., San Francisco; E. W. Hayes, M. D., Monrovia.

THE purpose of this paper is to discuss the selection of patients suffering from pulmonary tuberculosis who are suitable for surgery.

The term "surgery" is applied to the various methods of extrapleural thoracoplasty, operation on the phrenic nerve, external and internal pneumolysis. The application of these methods will not be considered.

Surgery in pulmonary tuberculosis is based on a sound physiological principle and an accurate knowledge of its pathology. The object of all surgical interventions is to obtain a relaxation of the lung, with the ensuing atelectasis which places the diseased lung at rest, obliterates cavities and decreases the toxemia, increases fibrosis and so secures scarring and retraction.

It must be impressed upon the patient that the operation does not eradicate the diseased lung but only assists the patient in increasing his resistance and in preventing reinoculation and hemorrhage.

If surgery is confined to the ideal cases, operation will be refused to many who would be benefited by it. Results from operation on improperly selected cases will be unfavorable and a discredit to surgery.

POINTS FOR CONSIDERATION IN SELECTION OF CASES

Resistance.—The selection of patients suitable for surgery is of the utmost importance. It requires a careful consideration of all the phases of pulmonary tuberculosis, especially the immunological reactions, and the closest collaboration with a tuberculosis specialist.

The accurate estimation of the patient's resistance to surgery as manifested by the various clinical symptoms, with a clear understanding of the immunological processes, will greatly assist in the selection of the appropriate time for operation.

Interpretation of Roentgenograms.—The correct interpretation of a series of roentgenograms, taken over a period of months is of extreme importance. A decision should not be based upon a few plates. It is advisable for the surgeon to make an exacting study of the roentgenograms with a competent roentgenologist. Such study, made over a period of years, will aid him in the selection of cases, the type and extent of surgery to be performed.

Physical Findings.—The physical findings and clinical observations are perhaps of more importance than the roentgenological studies. The surgeon should be adept in the use of the stethoscope. It will often prevent him from operating on unsuitable cases.

The pathological condition of the diseased lung is an important factor. For our consideration it is sufficient to classify pulmonary tuberculosis into two groups: the exudative and the proliferative fibrotic types. The primary tuberculous lesion of the lung is always exudative. When the initial lesion is slight, with good resistance, it readily changes into the proliferative type with a tendency to fibrosis. The less resistance produced by the patient the more extensive the exudative lesion. After the initial lesion, dependent upon the extent of infection and the patient's resistance, there always exists the mixed form. It is important to know whether the exudative or the proliferative type predominates, and to what extent. Experience has proved that surgery in the preponderant exudative lesion gives the poorest result, whereas in the slow progressive proliferat-

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ing type the best results have been obtained. Operation in the stage of defense is inadvisable. It is only after this stage has been passed and the patient is not making satisfactory progress that surgery should be taken into consideration. Further procrastination is inconsistent with the experience of the present results from surgery.

INDICATIONS FOR SURGERY

1. Unilateral chronic fibrotic ulcerative tuberculosis with or without cavities, in which conservative methods have failed, with a contralateral lung which has no activity in the apex, nor the presence of a hilar, or lower lobe lesion is a condition favorable for surgical intervention.

2. Some cases, with a basal exudative lesion, which are progressive, with extensive pleural adhesions, with a normal contralateral lung, in young patients, with good resistance may be considered. Extreme care should be exercised in the selection of the exudative cases. The highest mortality and the poorest results follow surgical interference.

3. Hemoptysis is not an indication for urgent surgery. As a rule, strict rest with other conservative treatment is usually sufficient to arrest the bleeding.

Repeated hemorrhages in suitable cases are greatly benefited by surgery. Internal pneumolysis is effective when an incomplete pneumothorax, due to adhesions, prevents the compression of the diseased lung which is bleeding.

Phrenic interruption will often control repeated hemorrhage from cavities. Extrapleural thoracoplasty is an efficient method of permanently stopping bleeding in the chronic ulcerative diseased lung.

4. Tuberculous empyema with mixed infection, in which conservative methods have failed, calls for surgery. In this condition we cannot be too particular about the contralateral lung.

5. Incomplete pneumothorax is helpful for a unilateral involvement which is not making satisfactory progress.

6. Early surgery will prevent the development of empyema and save many patients with a pleural effusion, secondary to artificial pneumothorax with or without tubercle bacilli, which accumulates after repeated aspirations, and in which expansion does not take place after the withdrawal of the fluid. Ordinarily 15 per cent of these patients would develop empyema.

7. Spontaneous pneumothorax with bronchial communication is helped by the intervention of surgery.

Too much consideration of the existing pathological condition of the involved lung should not be given, but more attention to the patient's resistance to surgery. Individuals with bad family history of tuberculosis are poor operative risks. The emaciated and the obese patients do not tolerate surgery and, if possible, their condition should be improved.

The outward signs of fibrosis of the lung, manifested by the narrowed and insunken inter-

costal spaces; marked supra- and infraclavicular grooves; atrophy and slight rigidity of the muscles attached to the anterior and posterior chest walls; these, associated with the roentgenological findings of a deviation of the trachea to the affected side, fixation of the mediastinum, a rising of the diaphragm, and a drawing over of the base of the heart, are indications that every effort is being made by nature to put the diseased lung at rest, but that further aid is required.

CONTRALATERAL LUNG

Patients with unilateral tuberculosis are seldom seen by the surgeon. Surgical need is not a question of whether one lung is free from disease, but it is a question of the type, location, extent, probable duration, and whether there is any activity.

It is obvious that any diseased condition of the good lung requires adequate observation; if the condition is progressive, surgery is contraindicated; should the disease remain stationary, or be retrogressive, graded surgery may be considered.

It is not unusual to observe improvement in the contralateral lung after a phrenicectomy, and a continued improvement after a complete thoracoplasty has been performed.

It is in this class of patients that the test operation of phrenicectomy is of value. After the diaphragm is paralyzed and the patient has an elevation of temperature, increase in pulse rate, and moisture over the suspected area, further surgery is contraindicated at this time.

The existence of a chronic disease of the good lung, such as emphysema, chronic bronchitis, bronchial asthma, bronchiectasis, extensive adhesions between the base of the lung and diaphragm, is a contraindication for surgery.

CONTRAINDICATIONS TO SURGERY

In Early and Late Cases.—Early cases in the defense stage, and advanced bilateral cases, are an absolute contraindication.

Lack of Defense Mechanism.—Constitutional symptoms, manifested by a high temperature, rapid pulse rate, increased respiration, dyspnea, cyanosis, a low blood pressure, are all symptoms indicating exhaustion, with a complete breakdown of the defense mechanism. Surgery will hasten the end.

Blood Picture.—A gradual decrease of the erythrocytes, low hemoglobin, increase in the lymphocytes, with a continued absence of the eosinophils, and a decrease in the sedimentation time, are all factors indicating a failing resistance.

Age.—Operations should be limited to patients between the age of fifteen and forty-five. The best results are obtained between the age of twenty and thirty-five. Age is, however, not an important factor in the selection of cases. Patients at the age of twelve and fifty-seven have been operated.

Choice in Left and Right-sided Operations.—Operations on the left side give better results than

on the right. The left lung, consisting of two lobes, smaller in volume, assisted by the heart in aiding compression, are the important factors in determining the end-result. Cardiac embarrassment is more frequent when operation has been on the left side.

Circulatory System Contraindications.—A persistent pulse rate over one hundred, with a blood pressure under a hundred, is a relative contraindication to major surgery.

Myocardial degeneration is an absolute contraindication to thoracoplastic operations. Valvular lesions without myocardial damage are satisfactory risks. In all doubtful heart conditions an electrocardiogram is a valuable aid in estimating the patient's resistance to surgery. After a thoracoplastic operation an additional amount of work is placed on the heart, first, by the displacement of the heart; second, by an increased resistance in the lesser circulation; and third, by the autotuberculation of the patient, causing an increase in the heart rate.

Kidney Impairment.—Patients with kidney conditions which give an impaired functional test, with changes in the blood chemistry, should not be submitted to major surgery. A mild degree of toxic albuminuria is not a contraindication.

Tuberculosis of the Intestines.—A mild chronic tuberculous condition of the intestines which does not interfere with proper nutrition is not an absolute contraindication. A tuberculous ischiorectal abscess should not deter one from considering major surgery of the chest.

Tuberculosis of Other Organs.—Tuberculosis of the larynx, with a severe perichondritis is a relative contraindication; a mild laryngeal tuberculous involvement usually improves after a thoracoplasty.

Chronic tuberculosis of the bones, joints, or skin are not an absolute contraindication to surgery.

SUMMARY

This paper is a plea to that group of physicians who are well informed on the results that have been accomplished by surgery but have not had the courage to abandon their conservative treatment in chronic destructive processes of the lung which show no improvement. May they reconsider these cases, realizing that they can save many from an early death, cure at least one-third, improve another third, and prevent an enormous economic loss of time and money.

The selection of cases is of paramount importance, but the end-results will be in direct proportion to the surgeon's skill in his preoperative management, his operative technique, and the postoperative treatment.

520 West Seventh Street.

DISCUSSION

HAROLD BRUNN, M. D. (384 Post Street, San Francisco).—Doctor Schiffbauer has given us in a masterful way the indications and contraindications for the adoption of surgery in pulmonary tuberculosis. We will, therefore, not discuss the operative procedures

themselves, but confine ourselves to the subject as outlined by him in his paper.

I am glad to note the very evident conservatism which marks the work of Doctor Schiffbauer. The general surgeon taking up this type of work must more or less reconstruct himself and take a different attitude than has been his custom in his ordinary surgical work.

Patients suffering from tuberculosis that are brought to his attention for surgery require careful study, long observation, and consideration of preliminary procedures before the major operation is undertaken, and a close association with the specialist. This is not the place for quick judgments and dogmatic generalization. Each case must be decided upon its own merits.

As has been pointed out, certain groups of these patients do not respond to surgery; on the contrary a surgical procedure may, in one of several ways, tend to extend the disease. I think I can say that where we have undertaken surgery with grave doubt that, for the most part, we have had regrets.

We believe that thoracoplasty and phrenicotomy are two surgical procedures of great value in well-chosen cases, and will shorten the time of cure that cannot be obtained by other methods.

We quarrel at times with the tuberculosis specialist who, although a believer in collapse therapy (artificial pneumothorax), still persists in this when it is not bringing about a result, either because of adhesions or other factors, and refuses to accept thoracoplasty which so perfectly meets the requirements.

Theoretically they admit the value of the operation but practically they refuse to submit their patients to it. The line of cleavage lies in the fact that they believe these patients will with rest and time get well, as many have, and that thoracoplasty, while it may hasten recovery, might throw them over on the other side and they refuse to take the chance.

We who believe in thoracoplasty think that the tuberculosis specialist fails to give a certain proportion of his patients the advantage of this operation and waits too long until finally the indication for it has passed.

Education is necessary on both sides. We believe there is a common ground, but this can only be accomplished by intimate association and discussion.

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WILLIAM B. FAULKNER, JR., M. D. (University of California Hospital, San Francisco).—The value of collapse therapy in pulmonary tuberculosis has already been definitely established. The successful outcome in many cases following artificial pneumothorax has been recognized by all familiar with this type of work. There is a group of cases, however, in which pleural adhesions so fix the lung to the diaphragm and chest wall as to interfere with an efficient collapse by artificial pneumothorax alone. It is in this group that section of the phrenic nerve or thoracoplastic procedures find their greatest use. As has been pointed out by Doctor Schiffbauer, the success to be obtained following these surgical measures is in direct proportion to the care employed in the selection of cases and the choice of operative procedure. This selection of cases calls for the greatest coöperation between the chest specialist, thoracic surgeon, and roentgenologist.

It is by such coöperative work that exceptional improvement often follows the use of surgery. There are a few scattered cases, however, in which surgical treatment is followed by a persistence of the symptoms, or an extension of the patient's disease. The unfavorable impression which these present leads to a hesitancy in recommending surgery for other patients in whom all the indications are present for an operative improvement.

If symptoms persist following operation they are as a rule due to an incomplete collapse of the diseased lung. The localization of the remaining disease within the lung can sometimes be made by the injection

tion of bromifin into the tracheobronchial tree or by bronchoscopic examination. Further operative procedures aiming at collapse should then be carried out at the site at which bromifin has localized the disease. We have had one such patient who had an incomplete relief of symptoms following section of the phrenic nerve and posterior thoracoplasty. (The sputum had been reduced from two cups to one-half cup a day.) The remaining disease was localized in the anterior portion of the chest. An anterior thoracoplasty was then done, and the patient had an immediate and complete relief of all symptoms. This particular patient illustrates the need for further surgery rather than less surgery in certain instances that fail to improve with the usual operative procedures.

The extension of the disease following surgery has been attributed to the aspiration of pus from the compressed area of the diseased lung with resulting aspiration bronchopneumonia. This can be prevented if the patient is bronchoscoped immediately before the chest operation so as to remove pus from the diseased areas. This procedure can readily be done in a very few minutes under local anesthesia without pain and with little discomfort to the patient.

We believe that with the employment of the bronchoscope, the use of bromifin, and the adoption of further operative procedures, the favorable results following surgery should be even more marked. However, as Doctor Schiffbauer emphasizes, surgery does not give an immediate cure of the disease; the patient still has tuberculosis and should continue medical care and general tuberculosis regimen long after the operative convalescence.

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E. W. HAYES, M. D. (129 North Canyon Drive, Monrovia).—Surgery in pulmonary tuberculosis, as Doctor Schiffbauer has pointed out, is based on sound physiological principles. Artificial pneumothorax has demonstrated the effectiveness of collapse therapy in this disease and, as a consequence, it stands out today as the one great addition to our therapeutic armamentarium in this field during the past twenty-five years.

Collapse of the lung by surgical measures, while yet relatively new in its application, bids fair to take its place alongside induced pneumothorax as another real addition to the therapy of pulmonary tuberculosis. Chest surgery, however, is considered and applied, for the most part, only when pneumothorax cannot be effectively induced. It is a more serious undertaking than pneumothorax. Consequently it requires more careful study and selection of cases.

Doctor Schiffbauer has covered the points to be considered in this selection so thoroughly, and brought out his points so clearly that I can add but little to what he has said. As an internist dealing entirely with chest conditions, I do want to emphasize one or two of the points he has made.

We must bear in mind the importance of a careful study and an understanding of cases of pulmonary tuberculosis that are to be subjected to surgery lest, on the one hand, it will be denied to those who could be benefited by it, and, on the other, it will be applied to cases unsuited and will bring this means of therapy into disrepute. There should exist the closest collaboration between the tuberculosis specialist and the chest surgeon, or better still, as the doctor has said, the chest surgeon should familiarize himself with the physical signs and clinical course of pulmonary tuberculosis and the chest specialist should aim to familiarize himself with those factors which a patient must withstand when subjected to the additional and always severe strain incident to surgery of the chest. Under these circumstances the chest specialist will be in a position to intelligently select patients for surgical consideration; while the chest surgeon will then be able to render to his patient a more intelligent and more effective preoperative study and care, and post-operative management.

INFECTION OF ABDOMINAL WALL WITH *B. WELCHII* FOLLOWING ENTEROSTOMY FOR BOWEL OBSTRUCTION*

REPORT OF CASES

By EDMUND BUTLER, M. D.

AND

GEORGE RHODES, M. D.

San Francisco

DURING the last five years one hundred and eighty patients have been operated upon for bowel obstruction. Many of these patients came into the hospital late and frequently enterostomy was performed. We have always strongly advocated enterostomies in the first loop above the region of the obstruction in late cases. The improvement following enterostomy has been so obvious that we are inclined to make use of it in many patients who would recover without drainage. The opening of the bowel under the most perfect technique results in contamination of the peritoneum and the wound.

B. welchii or other pathogenic anaerobes are always present in the lower ileum. This finding is the observation of many careful investigators. Dudgeon cultivated *B. welchii* from the stools of 35 per cent of two hundred ward patients. Williams cultivated *B. welchii* from the vomitus of eleven out of nineteen cases of bowel obstruction, from nineteen out of twenty advanced cases, and no growth of *B. welchii* from the vomitus of three patients with pyloric obstruction. In a reprint of patients treated with gas gangrene antitoxin, Williams shows a reduction in mortality in appendicitis from 6.3 to 1.17 per cent, and in bowel obstruction from 24.8 to 9.3 per cent, crediting the use of gas gangrene antitoxin for this remarkable reduction.

Spinal anesthesia is particularly suitable for patients suffering from bowel obstruction. The use of spinal anesthesia, and the milking of bowel contents into the colon, from which the toxic material is rapidly evacuated, will greatly reduce the number of enterotomies and enterostomies. Many border-line cases will clear up without operation following the use of spinal anesthesia.

Organic intestinal obstruction is a surgical condition requiring an early diagnosis and early operation. Tissue fluids and chlorid lost by vomitus must be replaced by intravenous and subcutaneous salt solution. Tube drainage of the stomach is advisable; the tube should be left in place as long as nausea is present. Enterostomy may be replaced in certain cases by threading a long stomach tube of large diameter through anus, rectum, sigmoid, ascending colon, transverse colon, and descending colon. Through this tube fluid contents and gas may be evacuated.

The use of *B. welchii* antitoxin, as advocated by Williams, has a very definite place in the treatment of severe toxemia following bowel obstruction, and many investigators not so impressed

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with the glowing statistics of such optimists as Williams, nevertheless advocate its use. We believe that every case of bowel obstruction and peritonitis which shows toxemia should receive anti-gas gangrene serum.

The following two cases were treated in our wards at the San Francisco Hospital. The first was an infection of the operated wound with a pure culture of *B. welchii* following enterotomy; the second, a peritonitis and polymicrobial wound infection following enterostomy, the outstanding finding being the presence of anaerobes which produced excessive gas and gangrene in the anterior abdominal wall.

REPORT OF CASES

CASE 1.—December 4, 1929. V. C., No. 116934, female, age fifty-four.

Condition on Examination.—Bowel obstruction complete. Symptoms began seventy-two hours before entrance to the hospital.

Operation.—Adhesion that completely obstructed ileum four feet from ileocecal valve was released. Bowel was completely drained after the method described by Halden. Opening in bowel was closed, and laparotomy wound closed without drainage. Forty-eight hours later wound opened; the subcutaneous tissues were edematous and contained bubbles of gas. Marked evidence of general toxemia was present, but no gangrene. Entire rectus muscle was found liquefied into a chocolate-like solution. Hematogenous jaundice was marked.

Treatment.—One hundred cubic centimeters of anaerobic antitoxin in four hundred cubic centimeters of 10 per cent glucose was given intravenously. One hundred cubic centimeters anaerobic antitoxin was injected subcutaneously and intramuscularly around the involved area.

Improvement in general condition was almost immediate. Jaundice cleared rapidly. Twenty-four hours later, one hundred cubic centimeters of antitoxin was given intravenously. Patient recovered slowly, and was discharged as well on February 15, 1929.

Cultures showed pure growth of *B. welchii*.

CASE 2.—December 1, 1928. No. 116830, female, age fifty-five.

Condition on Examination.—Strangulated postoperative ventral hernia. Symptoms began ninety-six hours before entering hospital.

Operation.—Adhesions were freed and enterostomy was performed in loop proximal to the loop incarcerated in hernia sac. The intestine was not gangrenous.

Twelve to five, patient's bowels moved; there was no vomiting and fluids were retained by mouth.

Twelve to seven, skin discolored in the region of the wound; crepitation extending several centimeters wide of incision. Opened wound wide of the limits of gangrene present and excised the necrotic tissue. Dakin tubes were inserted and the excavation was flooded with Dakin's solution.

One hundred cubic centimeters of anaerobic antitoxin and four hundred cubic centimeters of 10 per cent solution of glucose were given intravenously. The general condition showed a definite improvement after the debridement and the administration of antitoxin.

On December 9 the patient expired.

Cultures contained *B. welchii* and other anaerobic bacteria and colon bacilli.

Autopsy Report.—Gangrene of operative wound; general peritonitis, acute; pelvic peritonitis, chronic; salpingitis, chronic.

We feel the anaerobic antitoxin was a valuable aid in the treatment of these two patients and that it should be more generally used in any toxemia resulting from bowel obstruction or peritonitis.

490 Post Street.

THE LURE OF MEDICAL HISTORY

HIPPOCRATIC MEDICINE*

PART II

By LANGLEY PORTER, M. D.

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THE ASKLEPIAD

UNDER these circumstances it could not be expected that scientific medicine should hold the field undisputed. Theurgic medicine, the Christian Science of that day, flourished, so much so, that the Asklepiad Brotherhood, in whose ranks the Hippocratic tradition was born and nurtured, had its origin indirectly from temple healing. So many were the patients that flocked to the shrines of the god of healing, Asklepius, that there was an overflow of sick people who had to be treated. Furthermore the priests accepted only those they had invited for treatment, so that at Epidaurus, at Cos, or at Tricca, and a score of other temple towns, there were always many sufferers in need of aid. There arose then this group of lay physicians bound in a brotherhood, called the Asklepiad, who devoted themselves to the care of such invalids. So successful were they, and so divorced from temple practice, that through them developed a truly scientific attitude toward the study and treatment of disease. Although some students of the subject are unconvinced, it seems undoubted that, in this way, unattached to the temple, but dependent on it for patients, the Asklepiad Brotherhood rose and flourished. So successful was it that it produced great masters of the art, like Hippocrates, and great schools like those at Cos and Cnidus. So entirely successful that, based on the tradition it established, there arose later on, the still greater schools of Alexandria, Pergamos, Smyrna, and a host of others, and there emerged such famed physicians as Herophilus, Erasistratus in Alexandria, and Galen in Pergamon and Rome.

The temples of Asklepius were always placed in beautiful situations, charming and salubrious, where sparkling springs rose near pleasant wooded hillsides. These temples had all those attributes of restful attractiveness that lie at the root of the popularity enjoyed by the European spas. People flocked to the temples certain of the healing power of the god and, almost invariably, they went away refreshed and heartened, if not healed. Many times they, as do some of our friends of today, played one power against another, and resorted to the practitioners of lay medicine on their way to or from their treatment at the hands of the servants of the divinity, the temple priests.

One feature of interest to the modern physician was the abaton. This was a lofty outdoor sleeping porch where the patients, lying in their beds day and night, awaited the pleasure of the god. It was understood that the deity would visit them

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as they slept, revealing himself as they dreamed. He always did—his priests saw to that—and a few days, or hours later, the patient left the abaton.

Of course, the treated one made proper returns in the shape of donations of money and of various small animals or birds, sacrificed on the altars of the temple; and these had to be purchased at a price from the priests. Another type of offering was the so-called votive gifts; these were terracotta casts (sometimes they were fabricated of ivory or precious metals) of the afflicted parts. These were left at the temples, much as patent medicine testimonials are written by the grateful today. Sometimes they were placed before the altar of the god preceding a cure, in order that he might not, in his hurry and the stress of overwork, forget the part that the supplicant wanted healed. These votive offerings make a fascinating collection of primitive pathology. To a gathering like this those votives, representing diseased pulmonary organs and various manifestations of bone tuberculosis, might be of great interest. There are many of them to be found in various European museums and some also are depicted in the literature of medical history.

SOME EXCERPTS FROM ANCIENT TEMPLE RECORDS

In his history of medicine, Singer deals interestingly with the matter of the temple methods and quotes the records of several of their reputed cures—among the most interesting, that of the man who had an abdominal abscess. "He saw a vision and thought that the god ordered the slaves who accompanied him to lift him up and hold him so that his abdomen could be cut open. The man tried to get away, but his slaves caught him and bound him. So Asclepius cut him open, rid him of the abscess, then stitched him up again, releasing him from his bonds. Straightway he departed cured, and the floor of the abaton was covered with blood."

Another such record runs:

"A certain Teucer, afflicted with epilepsy, went to the Asclepicon at Pergamus and besought the god to heal him. Asclepius appeared, as usual, in a dream, and asked whether he would like another disease instead. Teucer replied this was not his most earnest desire—in fact, he would rather be healed entirely; but if that was impossible, and the other disease less troublesome, he would accept it. The god replied that it was less troublesome, and was also the best cure for his complaint. Thereupon he was attacked by a quartan fever, but was delivered from his epilepsy."

This suggests that the influence of malarial fever in mitigating convulsive seizures was not unknown as long ago as 500 B. C.

The entire freedom of the lay medicine of the Hippocratic tradition from such supernatural influences is clearly demonstrated by the writer of the book called "Concerning the Sacred Disease" who discourses as follows:

"I am about to discuss the disease called 'sacred.' It is not, in my opinion, any more divine or more sacred than other diseases, but has a natural cause and its supposed divine origin is due to men's inexperience and to their wonder at its peculiar char-

acter. Now while men continue to believe in its divine origin because they are at a loss to understand it, they really disprove its divinity by the facile method of healing which they adopt, consisting, as it does, of purifications and incantations. But if it is to be considered divine just because it is wonderful, there will be not one sacred disease, but many, for I will show that other diseases are no less wonderful and portentous. . . ."

The contrast between the methods of these temples and the practice of the Hippocratic physicians is nowhere better illustrated than in the paragraphs of the Corpus dedicated to "Operative Requisites in the Surgery," which reads:

"The patient, the operator, assistants, their number; the light, where and how placed; the instruments which he uses, how and when; the patient's person and the apparatus. The operator, whether seated or standing, should be placed conveniently to the part being operated upon and to the light. Now there are two kinds of light, the ordinary and the artificial, and while the ordinary is not in our power, the artificial is in our power. Each may be used in two ways, as direct light and as oblique light. Oblique light is rarely used. With direct light, so far as available and beneficial, turn the part operated upon toward the brightest light, except such parts as should be unexposed and are indecent to look at; thus, while the part operated upon faces the light, the surgeon faces the part, but not so as to overshadow it. For the operator will in this way get a good view. . . . The nails of the operator neither to exceed nor come short of the finger tips. Practice using the finger ends. Practice all operations with each hand and with both together, your object being to attain agility, speed, painlessness, elegance and readiness. Let those who look after the patient present the part for operation as you want it, and hold fast the rest of the body so as to be all steady, keeping silence and obeying their superior. . . ."

HIPPOCRATES

Of Hippocrates himself, we know little—the time of his birth, 460 B. C., the fact that Plato referred to him with approval and that Aristotle acclaimed him "The Great"; that, within a few years, legend had enshrined him in an immortality of the supernatural. Bees building their hives on his grave produced a honey, it is said, which was a panacea for aphthous stomatitis. Miraculously he stayed the plague in Athens, although reliable historians tell us he never was in that city. We do know that, of the writings attributed to him, some were written before he was born, many after his death, and only a few could possibly have been from his own hand. The works attributed to Hippocrates constituted, in fact, a library gathered at one of the great schools of medicine which, after Hippocrates' death, carried on the high Asklepiad tradition at Alexandria, Pergamon, Smyrna, and a number of other centers in Asia Minor. Asia Minor and Egypt, we must remember, in the third and second century B. C., were the richest parts of the world, alive with commercial, artistic and intellectual activity.

THE HIPPOCRATIC WRITINGS

The Hippocratic writings most probably were from Pergamon, which was the city nearest to the ancient school of Cos, whence came Hippocrates himself.

Jones analyzes the Books of the Corpus as falling into six categories:

1. Texts for physicians.
2. Texts for laymen.
3. Prospects for or reports on research.
4. Lectures or essays, some given to students of medicine, some to laymen.
5. Essays by philosophic minded laymen interested enough in medicine to want to philosophize about it.
6. Notebooks or scrap books—a medley.

Three hundred years elapsed between the origins of the earliest and of the latest books, which divided into a pre-Hippocratic and a Hippocratic group.

A reading of the Hippocratic books makes it quite evident that the great mass of diseases, other than surgical, which came to the Greek physician for treatment, were diseases of long duration. The commonest were epidemics of various types, malaria, fevers of the typhoid group, epileptic seizures and phthisis, so named because of its most striking symptoms, wasting. Even today, with all our instruments and all our organized efforts to make an early diagnosis of pulmonary tuberculosis, we fail very often. Is it, then, any wonder that the Greeks, two thousand years ago, under the social and scientific circumstances, knew the disease imperfectly and only in its more developed stages? Yet, what they did know remained practically all that was known down to the days of Laennec, except for a little that was added in the fourth century A. D. by Areatus the Cappadocian, who took empyema out of the category of pulmonary phthisis and wrote illuminatingly of cavitation—ulcer he called it.

One of the most striking things in the Greek literature of the disease is the expressed belief in the influence of external surroundings as a factor in producing it.

The Hippocratic physician was keenly interested in prognosis—this for two reasons. As has been said, he had to sell scientific medicine to a skeptical and stiff-necked generation. His chance of success was greater if he could impress the sick man by recounting the various pains and discomforts that had followed his falling ill, and outline for him, with a fair degree of probability, what the future held in store; also it was to his advantage if he could foretell death or recovery with a reasonable approximation to accuracy. In the former case, he could clear his skirts of blame and in the latter, gain credit for good work accomplished. When it is considered that most of the Greek physicians were passing from town to town, and from city to city, strangers to those they served, the need for some impressive approach, such as accurate prognosis, becomes apparent.

The most famous Hippocratic passage taken from the book entitled "Prognostics" is an instruction in foretelling the approach of death. Thus it is written:

"You should observe thus in acute diseases: first, the countenance of the patient, if it be like those of persons in health, and especially if it be like itself, for

this is best of all. But the opposite are the worst, such as these: a sharp nose, hollow eyes, collapsed temples; the ears cold, contracted, and their lobes turned out; the skin about the forehead rough, stretched and parched; the colour of the face greenish, dusky, livid or leaden.

"If the countenance be such at the beginning of the disease, and if this cannot be accounted for by the symptoms, inquiry must be made whether the patient has been sleepless, whether his bowels have been very loose, or whether he has wanted food. If any of these be confessed, the danger is to be reckoned so far the less, and it will become obvious in a day and night whether or not the appearance came of these. But if no such cause exist and if the symptoms do not subside in this time, be it known for certain that the end is at hand."

THE HIPPOCRATIC TEACHING CONCERNING NATURE

The great underlying thought in the Hippocratic teaching was that nature tended to bring about a cure, and that the physician's duty was to intervene as little as possible, and then only to remove hindrances to the natural processes. The rôle that air plays in maintaining life was recognized, the breath was identified with the soul, and as the source of innate heat without which life and thought were impossible. The idea that Aristotle later expressed, of "fire without flame or spark," runs throughout the Hippocratic teachings. In the book "Concerning Ancient Medicine," which there is good reason to believe is from Hippocrates' own hand, it is written:

"Medicine has long had all its means to hand, and has discovered both a principle and a method through which the discoveries made during a long period are many and excellent, while full discovery will be made, if the inquirer be competent, conduct his researches with knowledge of the discoveries already made, and make them his starting point." The writer goes on to make the following criticism: "For most physicians seem to me to be in the same case as bad pilots; the mistakes of the latter are unnoticed so long as they are steering in a calm, but when a great storm overtakes them with a violent gale, all men realize clearly then that it is their ignorance and blundering which have lost the ship. So also when bad physicians, who comprise the great majority, treat men who are suffering from no serious complaint, so that the greatest blunders would not affect them seriously—such illnesses occur very often, being far more common than serious disease—they are not shown up in their true colours to laymen if their errors are confined to such cases; but when they meet with a severe, violent and dangerous illness, then it is that their errors and want of skill are manifest to all."

The same clear-sighted search for the practical is manifest when the author writes:

"I declare, however, that we ought not to reject the ancient art on the ground that its method of inquiry is faulty, just because it has not attained exactness in every detail, but much rather, because it has been able by reasoning to rise from deep ignorance to approximately perfect accuracy, I think we ought to admire the discoveries as the work, not of chance, but of inquiry rightly and correctly conducted." "I also hold that clear knowledge about natural science can be acquired from medicine and from no other source, and that one can attain this knowledge when medicine itself has been properly comprehended, but till then it is quite impossible—I mean to possess this information—what man is—by what causes he is made, and similar points accurately. I think a physician must know, and be at great pains to know about natural science, if he is going to perform aught of his duty, what man is in relation to foods and drinks and

to habits generally, and what will be the effects of each on each individual. It is not sufficient to learn simply that cheese is a bad food, as it gives a pain to one who eats a surfeit of it; we must know what the pain is, the reason for it, and which constituent of man is harmfully affected."

In those days the errors of approach seem to have been much the same as today, for the writer says:

"I am aware that most physicians, like laymen, if the patient has done anything unusual the day of the disturbance—taken a bath or a walk, or eaten strange food, these things being all beneficial—nevertheless assign the cause to one of them, and while ignorant of the real cause, stop what may have been of the greatest value."

Again there is insistence on the need for reality as the guiding principle of practice, as expressed in the following lines:

"Time is that wherein there is opportunity, and opportunity is that wherein there is no great time. Healing is a matter of time, but it is sometimes also a matter of opportunity. However, knowing this, one must attend in medical practice not primarily to plausible theories, but to experience combined with reason."

The likeness of the thinking that these ancients did about structures and function to our own, is illustrated in many other places in "Ancient Medicine"; by this passage in particular:

"I hold that it is also necessary to know which diseased states arise from powers and which from structures. What I mean is, roughly, that a "power" is an intensity and strength of the humours, while "structures" are the conformations to be found in the human body. . . ."

The word "powers" really is used to mean what we call function. Of course, as Littre, the greatest modern student of Hippocrates, said:

"Things were in a rudimentary state, that is, so far as background and the theory went; but not on the side of observed fact and of deduction from observation. In the matter of treatment, especially of surgical treatment, there are records in the Hippocratic writings that the best modern physicians would have no need to be ashamed of. For instance: 'The aged endure fasting more easily; next adults; next young persons, and least of all children, and especially such as are the most lively.' Again: 'Growing bodies have the most innate heat; they therefore require the most nourishment, and if they have it not, they waste.'"

If fever persisted fifteen days after the onset of a pneumonia the Hippocrateans presumed the presence of pus, and proceeded to evacuate it by incision with knife or cautery. Their advice shows that they knew something of immediate auscultation. The physician is instructed to shake the patient by the shoulders, placing his ear to the patient's chest in order to determine by the location of the sound on which side the fluid is. (Also, the wash leather-like creak of dry pleurisy is described.) If no sound is heard, one is to choose for incision the point where there is most pain; or, failing such a localization of pain, a procedure based on the presence of a localized increase in temperature is advised as follows:

"Cover and wrap the thorax in a thin linen cloth that has been wrung out in a warm suspension of potter's clay and, on the side that cools, cut or cauterize as near as possible to the diaphragm, taking care not to wound it."

That they knew of appendicitis, perityphlitis and peritonitis, is clear to those who read the book called "Prognostics," which says:

"It is best for the hypochondrium to be free from pain, soft and with the right and left sides even; but should it be inflamed, painful, distended, or should it have the right side uneven with the left—all these signs are warnings." "A swelling in the hypochondrium that is hard and painful is the worse, if it extends all over the hypochondrium; should it be on one side only it is less dangerous on the left. Such swellings at the commencement indicate that soon there will be a danger of death, but should the fever continue for more than twenty days without the swelling subsiding, it turns to suppuration." . . . "But whenever the swellings in these regions are protracted one must suspect suppurations. Collection of pus there ought to be judged of thus. Such of them as turn outward are most favorable when they are small, and bend as far as possible outward, and come to a point; the worst are those which are large and broad, sloping least to a point. Such as break inwards are most favourable when they are not communicated at all to the outside, but do not project and are painless, while all the outside appears of one uniform colour. The pus is most favourable that is white and smooth, uniform and least evil smelling. Pus of the opposite character is the worst." . . .

University of California Medical School.

(Part III of this paper will be printed in the May issue.)

CLINICAL NOTES AND CASE REPORTS

ECTOPIC VENTRICULAR TACHYCARDIA

WITH PROBABLE ACUTE CORONARY THROMBOSIS,
AND HAVING A VERY UNUSUAL ELECTRO-
CARDIOGRAPHIC TRACING

REPORT OF CASE

By R. MANNING CLARKE, M. D.
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MRS. T. S., age fifty-three years, had been a very well woman until forty-four years of age. At this time she was operated upon for a tumor of the uterus. Patient suffered an attack of bronchopneumonia twice in the same year following the surgery. There was no other infectious history. After this experience, trouble with her heart increased until the time of her death, which occurred thirty-six hours after my consultation.

My physical examination revealed the following essentials:

The temperature was 100 to 104 degrees, pulse 90 to 120, blood pressure 150-90, having suddenly dropped from 200-110 the day before.

Cyanosis, dyspnea, edema, and coughing were extreme, there having been a sudden increase of dyspnea coincidentally with the drop in blood pressure the day before.

There were no thrills. The liver was five centimeters below the costal margin. The left leg was larger than the right and very sore and painful, especially below the knee.

The left border of the heart was fifteen centimeters from the midsternal line. The right border was not located. There was marked dullness in both bases and along the spine.

The rate was 120. The sounds were very hard to distinguish and tick-tack in character. There were no murmurs. There were heavy râles in both lungs.

Laboratory Findings.—The urine showed a specific gravity of 1.018; Ph 5.8. Hyaline and granular casts were both present, with albumin 1.25 per cent.

There was a leukocytosis of 21,700, with polymorphonuclears 88 per cent. Wassermann and blood culture were both negative.

The electrocardiographic tracing is shown in the accompanying illustration. The unusual thing about it is the alternation of the QRS complex.

We know that the impulses are of ventricular origin because the auricles are beating on a separate rhythm, and can be seen disturbing the constancy of the iso-electric line between the QRS complexes.

The paroxysm began before I saw the case and continued until her death. Were it possible to see the beginning and ending of the attack on an electrocardiographic tracing we would then have further proof that the origin of the impulses was ventricular.

In other words, the attack would begin with an aberrant ventricular complex that would be premature (not preceded by a P wave) and there would be a postparoxysmal compensatory pause, after the last beat as after any ventricular extrasystole. Such a tracing, identical with this one, is reported by Reid of Boston in his excellent book, "The Heart in Modern Practice," second edition, 1928, Lippincott, pp. 257. In this tracing, Reid was fortunate enough to obtain the entire paroxysm, and the above stipulations show very nicely.

This case was seen by several consultants in rapid succession, and the controlling physician was also changed twice in the last few weeks of her life. On this account supervision was more or less erratic. I was unable to determine the dosage of digitalis except in the last eleven days of life. *During this time the average daily dose was 15 drams of the tincture or its equivalent in digifolin.*

The cases I have been able to check occurred with excessive digitalis administration, or coronary thrombosis with infarction of the myocardium, or both.

In this case no necropsy was obtainable, but I made a diagnosis of acute coronary thrombosis, based on sudden increase of dyspnea and drop in blood pressure occurring the day before my consultation, along with the thrombosis of the posterior tibial and popliteal veins in the left leg.

606 South Hill Street.

APPARATUS USED IN TREATMENT OF FRACTURES OF THE PELVIS*

By SAM HERZIKOFF, M. D.
Los Angeles

I READ with interest an article recently published in CALIFORNIA AND WESTERN MEDICINE, submitted by Doctor Harding of San Diego, in which he described his method of treating fractures of the pelvis by the use of a sling and suspension of the patient. I was prompted by the article to mention that I have been using this method at the Golden State Hospital for the past five years in cases of fractures of the pelvis where there is wide separation of the fragments, especially in the region of the symphysis pubis. I quite agree with Doctor Harding on his condemnation of the swathe, plaster spica, Bradford frame, and

* From the Golden State Hospital, Los Angeles.

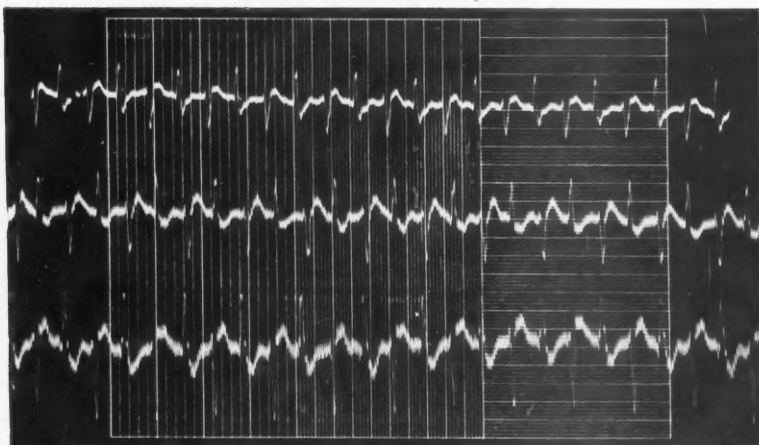


Fig. 1.—Electrocardiographic tracing

Thomas splint. I have never been able to see the value of applying a spica cast to these cases except for the comfort which it gives the patient. The cast could not be used to maintain compression of the fragments during healing without inflicting soft tissue damage from pressure. The doctor has covered well the various points in the treatment of these cases.

About five years ago the idea of treating these cases by suspension and a sling first came to me when I was called upon to treat a patient with at least a two-inch separation of the symphysis. By means of a "block and tackle" apparatus we were able to suspend the patient, supported on a sling, at any height desired. By the use of multiple pulleys we were able, by the application of only a few pounds of weight, to perfectly balance the position of the patient. A sketch of our apparatus is submitted. It is extremely simple and can be applied in a few moments. The patient can be raised and lowered in the bed at will to permit nursing care and the use of the bedpan. If the weights are properly balanced the patient will remain in any desired position. The pelvis can be partially or completely lifted from the bed as the individual case indicates and in this way one can control the amount of lateral pressure induced. It will be noted from the sketch that there are two overhead bars. Each end of the sling,

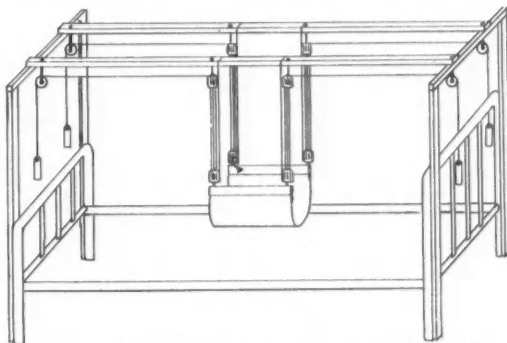


Fig. 1.—Apparatus used in treatment of fractures of the pelvis.

being suspended from a separate bar, permits the application of any desired amount of lateral pressure by adjusting the distance between the two bars. No special apparatus is required. A windlass is not necessary.

Our method is essentially the same as Doctor Harding's, but I feel that it is advantageous because:

1. The suspension can be balanced and permits greater comfort to the patient.
2. The position of the pelvis can be raised or lowered by the use of one hand and very little force.
3. If the patient raises himself, the sling also raises, and thus pressure is kept constant. This is not possible with Doctor Harding's apparatus.
4. It is also possible to turn the patient partially on the side and still maintain constant compression.
5. No special apparatus is necessary.

I agree with Doctor Harding's ideas in the treatment of these cases and feel that his method is very useful.

1212 Brockman Building.

INCOMPLETE INVERSION OF UTERUS WITH SUBSEQUENT PREGNANCY

REPORT OF CASE

By LAWRENCE F. WHITE, M. D.
Los Angeles

INCOMPLETE inversion of the uterus following delivery and expression of the placenta, though not rare, is an uncommon accident, and is ordinarily recognized at the time of its occurrence. It is, therefore, of especial interest that this condition could have been present in a young woman for a period of six weeks, causing only bleeding and a rather severe secondary anemia, and that it should have remained so long without attention or recognition.

REPORT OF CASE

On April 19, 1929, the patient, a white, married woman, age twenty, was admitted to the California Hospital on the surgical service. She complained of extreme weakness and continued vaginal bleeding. Her history revealed that she had been delivered of a living baby six weeks before. So far as she knew, the labor and delivery had been quite normal, but she had had more than the usual amount of bloody discharge during her ten-day stay in the hospital. She had continued to bleed, vaginally, after going home, at times discharging large clots. She had had no cramps nor pain, but had become increasingly weak. There had been no other pregnancies. The past history and family history were not unusual.

On hospital entry (six weeks following delivery) physical examination showed the skin and mucous membranes to be very pale; the eyes and skin suggested dehydration, the face drawn and apprehensive. Temperature, 98.4 Fahrenheit. Pulse rate, 104 (easily compressed). Blood pressure, 105/70. Respiration, 20. The blood picture was: hemoglobin, 40 per cent; color index, 62; red cells, 3,224,000; white cells, 7300; neutrophils, 76.5 per cent; lymphocytes, 17.5 per cent; large mononuclears, 5.5 per cent; eosinophils, 0.5 per cent.

She was grouped for blood transfusion and on April 20 was given 700 cubic centimeters of whole blood by the Unger method, using fasting donors, whose serum and cells had been cross-agglutinated with those of the patient. Immediately following the transfusion, examination under gas anesthesia revealed a large, globular mass protruding through a dilated cervix into the vagina. The picture was one of incomplete inversion of the uterus, which had been present for six weeks. The endometrium of the inverted portion was not grossly ulcerated nor inflamed, but was, however, very edematous and boggy to the touch. Manipulation and attempts at replacing the inverted fundal portion resulting only in placing the mass just within the external os of the cervix, it was thought expedient to pack the vagina and await improvement in the patient's general condition before making further attempts at reposition.

On April 22, under general anesthesia, another attempt was made to replace the inverted organ from the vaginal route. This was without success. The uterine tissue appeared to be too friable to permit of abdominal reposition by the use of multiple Allis forceps as advocated by Huntington, Frederick and Kellogg.³ Therefore two heavy chromic sutures were placed in the apex of the mass, a small incision was made, and these sutures or guys were pushed through into the abdominal cavity. The vagina was carefully treated with antiseptic solutions and then the abdominal cavity opened by a subumbilical midline incision. From this aspect a typical picture of incomplete uterine inversion was seen. The fallopian tubes, the broad ligaments, and the round ligaments were tightly drawn downward into the outpocketing formed. The color of these tissues was good, but they were more friable than normal. By gentle but firm traction upon the guy sutures previously placed, the inversion was corrected and the structures restored to their usual relations. The incised wound in the fundus was carefully repaired, drainage tubes placed, and the abdominal wound closed.

A pelvic peritonitis of mild degree developed, but this cleared up shortly and the patient made an otherwise uneventful recovery. Examination, approximately three months after discharge from the hospital, revealed that the patient was pregnant again. The uterus was in good position and the cervix normal in appearance.

It is an interesting fact that a considerable number of individual cases of inversion of the uterus are reported in the literature, while most authorities state that this condition is extremely rare. Eden² found it occurring in England once in 180,000 labors; Williams says that Beckmann reported 250,000 cases with none of inversion at St. Petersburg Lying-In Hospital, and that Madden reported 190,833 cases of labor with one inversion at Dublin.

Several different methods have been suggested for effecting reposition of the displaced organ. The technique of these various operative procedures is carefully discussed by Dr. Reuben Peterson,⁵ to whose excellent articles those interested are referred. It appears that as a rule manual reduction vaginally becomes increasingly difficult in proportion to the length of time the condition has existed. Certain cases of spontaneous reposition have occurred, the uterus apparently automatically resuming a normal position after the swelling, edema, and cervical spasticity of a recent inversion have subsided. Hysterectomy is rarely necessary, even in cases of rather long duration. Miller⁴ cites an instance in which inversion was corrected after seven months, and

in which a normal pregnancy and labor subsequently occurred. This same writer has collected fifty-six cases of inversion in the literature in which one or more subsequent pregnancies took place.

Meddlesome procedures in the third stage of labor are held responsible for a major portion of the inversions encountered. Probably, as stated by several writers, a fundamental weakness of the uterus and its supporting structures is essential, but haste and overenthusiasm usually unite with such weakness to produce the lesion. Donavon¹ emphasizes the following causes of uterine inversion, of which the first two are much the most important:

1. Traction on the cord.
2. Too vigorous compression of the fundus.
3. Sudden delivery, especially if the mother is standing.
4. Exertion after delivery, *e. g.*, coughing.
5. Short cord, of whatever etiology.

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Psittacosis—Or Parrot Disease.—Following the discovery of several cases of psittacosis in Annapolis and Baltimore, traced to parrots supplied by a wholesale dealer in this city, an investigation is now being made of several suspicious cases reported to the Department of Health from various parts of New York City.

The disease in parrots has been recognized for over fifty years, the first cases occurring in various parts of Europe. The causative organism is the *Bacillus psittacosis*, an organism related to the paratyphoid group. In parrots the disease is characterized by enteric symptoms; transmitted to man, the infection more usually manifests febrile and respiratory symptoms resembling influenza, pneumonia being a common complication. The course of the disease in humans varies; at times there is a case fatality of 20 to 25 per cent. The following excerpt from Chalmers and Castellani's work on tropical medicine may be of interest to our readers:

"History.—Ritter, in 1879, was the first to suspect that there was a connection between small epidemics of pneumonia limited to certain houses and an illness among parrots in the same houses. In 1880 Eberth obtained large numbers of micrococci from the bodies of gray parrots. Ritter's observations were confirmed by Ost of Berne, in 1882, and by Wagner of Leipzig, in 1885. In 1892, 500 parrots were shipped from South America for Paris, but no less than 300 died en route from enteritis. On arrival in Paris the surviving birds were divided into two lots and sold to various people, with a result that within twenty-six days of their arrival an epidemic of psittacosis broke

out, which resulted in forty-nine cases, with sixteen deaths. The epidemic was characterized by being of the house type, by which is meant that several persons in the same house were attacked by the complaint.

"Smaller epidemics occurred in 1893 and 1894, and in the same year Banti, Malenchini and Palamidessi reported an epidemic in Florence. In 1895 there were outbreaks in Prato, Cologne and Paris; in 1897 at Genoa; in 1898 at Cologne; in 1901 at South Elpidio, Ancona and Hull; in 1904 at New Hampshire, one of the eastern United States of America. Beddoes in 1914 reported several cases in England. We have seen epidemic enteritis of this nature develop in parrots in the Sudan, but prophylactic measures being immediately instituted it did not spread to man.

"Etiology.—The disease is apparently due to a bacillus belonging to the genus *Salmonella* Lignières of our classification, first isolated from the wings of parrots which had died from the disease by Nocard in 1893, and subsequently found by Gilbert and Fourmier in 1897 in the intestine of the sick birds, and also in the heart blood of a man who died from the disease. The bacillus in question is pathogenic for parrots and other birds. It is possible that this bacillus exists normally in parrots, and only becomes pathogenic under circumstances of bad hygiene, when it causes an enteritis. The feathers, becoming contaminated with fecal matter, are cleaned by the parrot with its tongue in the usual way, so that its mouth and bill become infected, and by this means the disease is spread to persons who feed or caress the bird. Very rarely the disease spreads from man to man. According to Bainbridge, *Bacillus psittacosis* is identical with *Bacillus aertryke*.

"Symptomatology.—The incubation period varies from seven to twelve days, after which the disease may begin suddenly with a chill, but more usually commences insidiously, like typhoid fever, with headache, malaise, etc., and a rise of temperature from 102 to 104 degrees Fahrenheit, with a pulse rate of 100 to 120 per minute, quickened respirations, cough, and mucopurulent expectoration. Râles may be heard over the lungs, while the spleen is enlarged, the tongue dry and furred, and diarrhea or constipation may be present. Rose-colored spots appear on the skin, and the patient becomes dull and stupid, in which condition he may remain for several days, and as a rule will recover in about fifteen to twenty days if no pneumonic complication intervenes. If, however, pneumonia sets in, the patient becomes much worse, and as a rule dies.

"Diagnosis.—The diagnosis is to be made by the discovery of sick parrots in houses in which people are suffering from typhoid-like fevers and pneumonia. Bacteriologically, attempts may be made to obtain cultures of the bacilli from the blood.

"Prognosis.—The prognosis is grave in old people and when pneumonia sets in, the mortality being stated to be about 35 to 40 per cent.

"Prophylaxis.—The infected parrots appear always to come from South America; therefore care should be taken that only healthy birds are allowed to be shipped, and that these are kept in good hygienic conditions during the voyage. On arrival at their destination, they should be quarantined for about a couple of weeks, and, if found to be infected, should be destroyed, and their dead bodies and cages burned. The places in which they were kept should also be thoroughly disinfected. Parrots should not be allowed to take food out of people's mouths, and should always be kept in good hygienic conditions."

Physicians encountering suspicious cases are requested to notify the Department of Health, which will gladly carry on the bacteriological and epidemiological investigations necessary to determine the nature of the disease. In all such cases it will be well to see that any sick or dead parrot is not disposed of, for the bacteriological examinations of the bird are very important in establishing the source of the infection.—*Weekly Bulletin City of New York Department of Health*, January 11, 1930.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An open forum for brief discussions of the workaday problems of the bedside doctor. Suggestions for subjects for discussion invited.

LOCAL COMPRESSION THERAPY IN THE TREATMENT OF PULMONARY TUBERCULOSIS

FRANK S. DOLLEY, LOS ANGELES.—Given a patient with chronic productive infraclavicular tuberculosis with general pleural adherence where healing is prevented by the presence of one or more small cavities, the procedure that will sacrifice the least amount of lung tissue with minimal danger to the patient is pneumolysis with local pulmonary compression.

Bilateral chronic apical disease with cavitation, which is responsible for the continued presence of tubercle bacilli in the sputum, constantly endangers the patient by possible extension. Thoracoplasty is definitely contraindicated. Pneumothorax is prevented by pleural adhesions. Pneumolysis and local compression, applied first to one side and later the other, may serve to accomplish a cure.

Occasionally following an extensive thoracoplasty a pulmonary cavity persists; a menace to the contralateral lung. If further rib resection seems inadvisable, local compression often achieves success.

Pulmonary hemorrhage may be arrested by pneumolysis and local compression if thoracoplasty seems too severe and other methods are unsuccessful.

Pneumolysis is the initial procedure in all local surgical compression therapy. This is accomplished by careful freeing of the lung together with its visceral and parietal pleura from the chest wall well around the involved area, so allowing the pulmonary tissues of this region to collapse downward and inward. The immediate result is very satisfactory if the cavity walls are not too stiff. Without an extensive thoracoplasty, however, and this is just what a local operation aims to avoid, a dead space is left which eventually will be obliterated by the formation of adhesions between the collapsed lung and chest wall. Later contraction of these adhesions would, more or less completely, return the lung to its original position. Pneumolysis alone, therefore, is seldom successful in accomplishing permanent cavity collapse.

The prevention of reexpansion can be accomplished in two ways; either by gauze tamponade, allowing the extrapleural space to heal by granulation, or by the permanent insertion of some material that will compress the diseased pulmonary tissues and at the same time fill the extra pulmonary dead space, thus preventing pulmonary reexpansion.

1. Pneumolysis and gauze tampon: Sections of several ribs are resected wide about the area to be compressed in order to prevent adhesions which, forming between the collapsed lung and ribs, would pull apart the cavity walls. Rubber tissue is placed within the wound and sufficient gauze tightly packed in this to fill the space created by the lung collapse. The soft tissues are tightly closed over this packing and, if no infection occurs, the gauze is allowed to remain undisturbed eight to twelve days. It is then removed and the wound is packed wide open, allowing the space to heal gradually by granulation.

2. Pneumolysis with the insertion of some substance that is not to be removed: A short section of one rib only is removed. The parietal pleura is separated carefully from the chest wall until the lung over the area to be collapsed is freed. Many substances have then been inserted to exert pulmonary compression; fat, lipomas, muscle, fascia, etc. All these gradually shrink in size and allow the lung partially to reexpand, thus decreasing considerably the probability of operative cure. Of the materials so far utilized, paraffin is probably the most efficacious. It shrinks little, is somewhat elastic, and is practically nonirritating. Its melting point must be somewhat higher than body temperature. The addition of one per cent bismuth makes it radiotranslucent. It is inserted warm and plastic, small portions at a time until sufficient compression is obtained. The soft tissues are then tightly and permanently closed over it. It is essential for its use that pleural adhesions be present below in order that the paraffin, by its own weight, may not sink below the level of the pulmonary tissues to be collapsed. Hemostasis must be complete, since serum forming about the paraffin may burrow to the surface, discharge and eventually lead to the extrusion of the paraffin.

If infection occurs, the wound must be at once opened, the paraffin removed and gauze tamponade with wide rib resection resorted to.

Local compression is contraindicated if the cavity or cavities are near the pulmonary surface. The pressure of tampon or wax easily sloughs through a comparatively thin abscess wall.

The advantages of pneumolysis with local pulmonary compression are: (1) The operation is a comparatively minor one and is attended with little or no shock. (2) Paradoxical respiration does not follow, so the danger of aspiration into the lung areas is minimized. (3) The sacrifice of actively functioning lung tissue is very little. (4) It can be carried out bilaterally where other procedures are contraindicated.

Its disadvantages are: (1) Rupture into pleural cavity. If the pleural leaves are not solidly adherent, an extensive pleuritis that often proves fatal may develop. If pleural space is well walled off the pulmonary abscess drains externally, sometimes persisting for years. (2) Occasionally long after implantation the area surrounding the paraffin may become infected, demanding the latter's removal. Rib resection and gauze tamponade is then the resort of choice.

* * *

F. M. POTTENGER, MONROVIA.—Doctor Dolley's discussion shows the ingenuity that the surgeon has been obliged to use in coping with the destructive phases of tuberculosis. It is a clear and concise presentation of the subject.

It was formerly taught that tuberculosis is an insidious disease and that all cases showing destructive lesions had been neglected in diagnosis. We now know that this is untrue; for tuberculosis often comes on as an acute process and shows cavity formation soon after clinical symptoms have first manifested themselves. The appreciation of the fact that tuberculosis often comes on as an acute destructive process is one of the real advances in our clinical conception. The fact that tuberculosis with insidious onset sooner or later goes over into an acute process, often with cavity formation, emphasizes the importance of immediate treatment when active disease has been diagnosed.

When acute destructive process with cavity forms in the lung, if the patient is put at rest immediately, preferably in an institution, and given the benefit of the well-recognized methods of treatment, a large percentage of arrests will result without collapse therapy of any kind. The danger of waiting is that pleural adhesions will form and that these will prevent effective collapse, should pneumothorax treatment be undertaken later. From the standpoint of choice, however, every patient who can secure healing of his pulmonary tuberculosis without any form of interference with his pleural space is in a better position as regards future physical efficiency than he would be were this principle disregarded. A cure may be brought about by the usual dietetic, hygienic regimen with bed rest in a large proportion of such patients in about a year's time; whether such method is going to be successful can usually be determined in five or six months' time. The disadvantage of a noninterference policy lies in the danger that pleural adhesions may form in the meantime and make pneumothorax out of the question. This has caused many to collapse such acute cavities as soon as the diagnosis is made. Pneumothorax does not produce its results any more quickly, for the lesion cannot heal short of many months. It does, however, permit the patient to be up and about sooner because it reduces or abolishes symptoms. This, however, is often of doubtful advantage, because rest and a careful regimen for a prolonged time is the best guarantee of permanent healing, whether a collapse therapy is employed or not.

Many of these cases start in apices which have previously been infected and which already are surrounded by a cap of pleural adhesions which preclude collapse by pneumothorax; others form adhesions during the period between cavity formation and attempted compression. In both of these, pneumolysis may bring about a favorable result.

One other group of cases in which pneumolysis is the ideal operation, provided it can produce a satisfactory collapse, is the type in which a permanent cavity forms in an apex surrounded by a pleural cap and adherent mediastinum. Tension from all sides holds such a cavity open and prevents compensatory closure. If such are treated by pneumolysis, or pneumolysis and a limited rib resection, the patient attains his result with the least loss of pulmonary tissue. Since most of these cases have had extensive involvement of pulmonary tissue outside of the area involved in the operative field, it is of great importance that the operation be done with the sacrifice of as little lung tissue as possible. For this reason pneumolysis makes a special appeal in such cases.

* * *

PHILIP H. PIERSON, SAN FRANCISCO.—Doctor Dolley's discussion of this subject is naturally from the surgical point of view and very well taken, for there are instances in which surgical compression therapy is very helpful.

There are frequently medical measures which may be undertaken to much advantage before resorting to the therapy which Doctor Dolley has outlined. We are all often surprised at the marked healing power which absolute bed rest, to the point of "typhoid rest," will achieve. This method has to be carefully explained to the patient in order to get his complete coöperation. Complete relaxation periods of ten minutes by the clock, ten times a day, will accomplish more than months of restless bed rest. It should always be tried before any form of surgical therapy is undertaken.

The next thing which may be tried before surgical compression is the use of the sandbag. This form of therapy has been found to be most beneficial in many cases. The sandbag should be properly shaped to the affected side and held in position by straps to the head of the bed. This works to advantage particularly if the patient lies in a recumbent or semirecumbent position. I have used a sandbag weighing seven pounds and think it of sufficient weight. When applied one hour on and one hour off it may accomplish the desired effect. Judicious waiting for this form of therapy to show its result is often tedious but worth while.

The best form of mechanical brace that I have seen is one where a screw, supporting a pad, is adapted to the thorax and increasing pressure is applied over the desired area. Here again spectacular results are seen in some instances.

Artificial pneumothorax is a well-recognized form of therapy for local lung compression. Nature uses this cushion of air in a selective manner, more over the affected part of the lung

than the good portion. This is explained by the resiliency of the normal lung tissue keeping it in a more expanded state than over the diseased area, where the relief of pleural suction allows internal contractures to set up a localized compression. I recently saw a case in Davis where pneumothorax was only partially successful in collapsing a subclavicular cavity, it being held open by two adhesions about one centimeter in diameter. Thoracoscopic study had shown these too large to be burned by the Jacobus method. Doctor Jessen removed about eight centimeters of the two ribs overlying this area and the relaxation of these adhesions brought about the local compression that was originally desired. In other instances adhesions may be severed and the local compression obtained.

The problem of apical cavities is one of the most difficult to handle, for thoracoplasty has frequently failed in its therapeutic value when applied to that region. It is here that pneumolysis or the resection of not only the posterior but the lateral and some of the anterior portion of the rib brings about the best compression. While speaking of thoracoplasty it should be said that lesions in the middle or lower portions of the lung are greatly benefited by thoracoplasty in a considerable number of cases, particularly if that thoracoplasty takes the ribs off up to and including the tips of the transverse processes of the vertebrae.

I feel that we are often in too much haste in performing more radical operations than phrenicectomy when, if sufficient time were allowed, the benefits of a less extensive operation would be manifest. Cavitation even as high as the clavicle, if given three or four months or even six months, may be completely closed and healed by phrenicectomy. There are other instances in which a mere crushing of the nerve will bring about a temporary paralysis of the diaphragm and thus give nature an opportunity to start the healing process even in disease of the upper portion of the lung.

* * *

WILLIAM B. FAULKNER, JR., SAN FRANCISCO.
Doctor Dolley's proposal of pneumolysis and tamponage as means of compression in the treatment of pulmonary tuberculosis is both timely and rational; and in selected cases this combined procedure should offer promising results; since it fulfills the strictest requirements of accepted therapy by:

1. Closing open lesions, controlling hemorrhage, and preventing spread of the disease.
2. Affording local pulmonary rest, compressing principally the diseased area, and preserving the actively functioning lung tissue.
3. Minimizing mechanical disturbances of the intrathoracic structures.
4. Being of benefit to patients in whom other compression methods have failed, or in whom other methods have been contraindicated.
5. Offering a low operative risk.

The successful employment of pneumolysis is so dependent on generalized adhesions overlying the diseased lung that one must determine in ad-

vance the presence, type, location, and extent of the pleural adhesions. This information cannot always be obtained from the study of plain x-ray plates, but following the use of a preliminary diagnostic pneumothorax and the interpretation of the accompanying postural roentgenograms, one is in a position to select that type of compression which seems best suited to the individual patient. If the diagnostic pneumothorax demonstrates an absence of generalized pleural adhesions, pneumolysis, tamponage, and other methods of treatment must give way to the continuance of pneumothorax. However, when "string-like" adhesions prevent a satisfactory lung compression, thoracoscopic examination, with severing of the adhesions by cautery, is both feasible and helpful.

If the diseased lobe is adherent to the diaphragm and to only that portion of the chest wall overlying the cavity, the respiratory-diaphragmatic movements exert an unfavorable tug on the walls of the cavity and tend to prevent healing. In such instances phrenic nerve section or avulsion is much more strongly indicated than is pneumolysis; but a patient with an immobile diaphragm and generalized pleural adhesions can expect little from a phrenic nerve section and must look to pneumolysis and tamponage for relief.

The employment of pneumolysis is also justifiable in the control of pulmonary hemorrhage if the surgeon can determine from which side the blood is coming, and if pneumothorax has not been effective. This localization of the source of bleeding is not always an easy task; for the abnormal physical signs may be equally marked and strikingly similar over both lungs, and one must depend on a bronchoscopic examination in selecting the site of operation.

Pneumolysis will find an almost universal place in the treatment of patients afflicted with bilateral apical cavernous tuberculosis, and will offer a ray of hope to those who are beyond the scope of other methods of treatment.

China Raises Medical Standards.—The passing of the old-style uneducated Chinese physicians becomes imminent as a result of a resolution passed by the National Board of Health at its conference in Nanking in June. *Science Service* reports that the Board decided not to grant new licenses to unscientific practitioners after December 31, 1930.

Considerable agitation resulted among the two thousand or so old-style doctors in Shanghai. A meeting of protest was held and a strike of medicine shop employees took place. Posters appeared on the shutters of medicine shops pointing out the need of the old-style physicians and medicines, and the harm that would accrue to the nation if they were abolished. On the other hand, advanced opinion, while admitting the hardship worked on the old-style physicians, takes the stand that such an important step as refusing them new licenses should not be delayed for almost two years. It is pointed out that the ignorant classes in China will long continue to go to native old-style physicians, regardless of whether they are licensed to practice or not, so that the sooner definite steps are taken to fight this evil the better.

The old Chinese physicians are little more than quacks, and cause incalculable harm, both directly by their treatments and indirectly by keeping patients from seeing scientific physicians until too late to save the patients' lives.—*The Diplomat*, November 1929

California and Western Medicine

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Contributions—Exclusive Publication.—Articles are accepted for publication on condition that they are contributed solely to this journal.

Leaflet Regarding Rules of Publication.—California and Western Medicine has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this journal write to its office requesting a copy of this leaflet.

EDITORIALS

THE FIFTY-NINTH ANNUAL SESSION OF THE CALIFORNIA MEDICAL ASSOCIATION AT DEL MONTE—TO BE HELD ON APRIL 28-MAY 1, 1930

The Program of This Fifty-Ninth Annual Session.—In this issue of CALIFORNIA AND WESTERN MEDICINE is printed the program of this year's annual session of the California Medical Association. This is the fifty-ninth year in which the California Medical Association may be said to have provided means for its members to meet in conference to discuss the various scientific and other problems of organized medicine, and through personal contacts with one another to fit themselves to return to their work with renewed strength and enthusiasm.

* * *

Members of the California Medical Association Should Plan to Attend This Del Monte Session.—Recent annual sessions of the California Medical Association have seemingly given members of the organization who attended the meetings a more than adequate return for the time and expense involved in such attendance. This year's session at Del Monte, while lacking somewhat in the generous hospitality which is usually extended by component county units of larger size, is nevertheless in one of California's most charming settings. All who have attended annual sessions at Del Monte in the years gone by will desire to again renew their acquaintance with this region and its alluring scenery, and with our colleagues

of that district. Members who have not had that pleasure should make a special effort to attend this session, which will begin on Monday, April 28, and adjourn on Thursday, May 1.

* * *

The Scientific, Social and Business Features of the Session.—A perusal of the scientific program as found in this issue will indicate how many are the interesting and important scientific topics which will come up for consideration and discussion, in the general and special sections. Our guest speakers are prominent colleagues from different sections of the country and our California essayists are also well known fellow practitioners.

The scenic charm and the hotel environment of Del Monte foretell also the best of fellowship, reunions and of social contacts.

What with meetings of the scientific assemblies and of scenic drives and walks and golf and dances in the way of social diversion, and of important business problems up for consideration by the House of Delegates, it may be taken for granted that the five days and their hours will flit by with amazing rapidity for all who can stay throughout the session.

* * *

Pre-Convention Bulletin and Standing Committees.—This will be the first annual session to be held under the provisions of the revised constitution and by-laws. For the members of the House of Delegates, the *Pre-Convention Bulletin*, containing abstracts of reports of officers and standing committees, will make its first appearance. It is believed that members of the House, through this new medium, will be able to get a better orientation of the problems which will come up for their consideration.

The House of Delegates will also have its first experience with an official speaker. That plan should work out as advantageously in California as it does in the national association.

It is important for members of the standing committees to meet and organize and to discuss the problems which their respective groups are expected to investigate. The Del Monte session will make such conferences possible. The co-operation of additional colleagues, which can be secured through the appointment of two to ten advisory members to each committee, as provided in the constitution and by-laws, might likewise be one of the matters to which the members of standing committees could give consideration in their conferences.

* * *

The Woman's Auxiliary of the California Medical Association.—The Woman's Auxiliary of the California Medical Association, which formed a tentative state organization at the last annual session at San Diego, will convene at Del Monte with at least a half dozen component county units represented. In passing, it is of interest to note that the newly formed auxiliary unit at Los Angeles, at the time of this writing reports a membership in excess of three hundred

and fifty. A leaflet compiled by order of the Council of the California Medical Association should make it easy for other county auxiliaries to come into existence in California.

It is to be remembered that these Woman's Auxiliaries are not to take up work belonging to the county medical societies, but to maintain interests and affiliations in fields and in organizations where the physician members of county medical societies do not contact, but where intelligent coöperation by members of a Woman's Auxiliary may be an additional means for promotion of the public health, through allegiance to proven standards of preventive medicine. The members of the Woman's Auxiliary in California each year will no doubt find more and more pleasure and profit in these state meetings.

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Scientific and Fellowship Contacts Go Hand in Hand.—As has been so often stated in this column, medical men need not only to know one another in their serious professional work, but also in their social and fellowship relations. Through such social contacts mutual understandings are created which make for better coöperation and more efficient end-results for organized medicine. In other words, these annual meetings make for a stronger California Medical Association and its component county units, and for higher and better standards of practice, and of greater protection to the public health. If an annual session can promote ends such as these, then the meetings of such an annual session certainly are worth attending. Every member who can possibly do so is urged to make an effort to register at this Del Monte session. The reward through such attendance will be more than ample.

MODERN HOSPITAL CONSTRUCTION COSTS —THE LOS ANGELES COUNTY GENERAL HOSPITAL AS AN EXAMPLE

The Estimated Size and Cost of the New "Acute" Unit of the Los Angeles County Hospital.—In the editorial columns of the last two issues of this journal, mention was made of the new unit of the Los Angeles County Hospital which is now in course of erection and completion, and of its estimated cost, which the press has stated will vary between the stupendous amounts of ten to sixteen millions of dollars!

This new "acute unit"—so-called because intended particularly for indigent citizens suffering from acute diseases or injuries—was planned originally for some 1500 beds, but will have actual provision for some 1911 beds when completed; with possibilities, it has been stated, of accessory crowding—according to the amount of crowding—up to a capacity of 2444 beds, or even up to 3300 to 3600 beds. For the basis of proper calculation or estimate of construction cost per bed, the figure 1911 would probably be the proper one to use, since the term "cost per bed" when properly used implies somewhat definite space, equipment and service standards.

Why the Attention of California Medical Association Members Is Called to These Construction Costs.—The attention of members of the California Medical Association is being called to certain aspects of the Los Angeles County General Hospital situation for several reasons.

One, because the members of the California Medical Association have a natural interest in all efforts to provide additional hospital facilities for citizens of California; two, because this hospital building now being built at Los Angeles is probably the most expensive hospital unit thus far erected anywhere in the world; three, because its physical attractiveness and conveniences—as good or better than the great majority of public and private hospitals in the United States and Europe—may be provocative of state medicine propaganda among lay citizens; and four, what may be said to be last but not least, the danger that seems to be lurking in the present atmosphere of things, that before or after this new and very expensive hospital structure is completed and equipped, the medical profession may find itself subjected to criticism or fault-finding by tax-paying lay citizens, for presumably having been in part responsible for what undoubtedly are very high or at least unforetold or unexpected costs of construction; which costs, the airing of which seems to be looming, certain newspapers and tax-paying groups are more than apt to consider as having been extravagant and even wasteful. When taxpayers feel that public moneys have been wasted, newspapers and taxpayers alike usually look for an "official goat." Believing that there is danger that the medical profession may be looked upon as an easy mark for such a doubtful honor, and knowing that it cannot justly be held responsible for mistakes in construction expenditures, it seems proper to establish its record before the storm breaks.

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How and Why This New Unit Came Into Existence.—The writer, by virtue of over twenty years' continuous membership and service on a medical advisory board to four different hospital superintendents or medical directors of the Los Angeles County General Hospital, may be presumed to be in a position to know what were the steps preceding the present building program at Los Angeles.

To start with an initial fact or condition, the Los Angeles County Hospital, owing to the rapid growth of population in the county and because no public municipal hospitals existed, has been more or less congested for the last twenty or thirty years.

A half dozen or so years ago, at a time when Mr. Norman R. Martin was superintendent of the institution, the situation became somewhat more acute and was thoroughly discussed; the Advisory Medical Board at that time recommending to the Los Angeles County Board of Supervisors that a bond issue of five million dollars be presented to the voters, this money to be used for the erection of a new unit or buildings for the

county hospital, and for extension of infirmary wards for certain chronic patients at the county farm and for development of the tuberculosis branch facilities. The bond issue was voted, and a contract was made by the board of supervisors with the Allied Architects' Association of Los Angeles for plans and superintendence (this contract was later changed, because the first contract brought into play the principle or right of a corporation to practice the profession of an architect). Much of this five million dollar bond issue was spent on the County Farm, on the Olive View Sanatorium and on other activities, but with what was left the start was made for the new building or buildings of the "Acute Unit" (Unit No. 3) of the county hospital.

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Included among such decisions were items as follows:

One. It was agreed that the present hospital site was the proper place for the new building or buildings, rather than branch county hospitals in Hollywood, Long Beach and other towns, as had been proposed by others.

Two. The pavilion system, of which the Cincinnati General Hospital is one of the most recent expressions, was set aside as being undesirable from the standpoint of hospital efficiency and economy. The large office or loft building, in line with modern architectural construction, was decided upon as being best adapted to modern hospital needs.

Three. The essential nature of the ward unit which would be represented in all the different wings and different floors was worked out. (That, however, is a story in itself; especially the ineffectual struggle by some members of the medical board to have a simple temporary one-story ward built to try out through actual use, the proposed ward unit which had been decided upon. The story of that unsuccessful effort must abide for its portrayal, for some other occasion than this.)

Four. The available free ground in the county hospital area being of low elevation and not well located, the writer urged the medical board to recommend to the board of supervisors the purchase of two city blocks to the rear of the existing acreage. This recommendation was made to and was accepted by the five members of the board of supervisors; and the bungalows thereon and also the hilltop were razed, and the site of the new building located thereon.

Five. Efforts were made to have consulting hospital experts placed on retainer, to help guide general and special plans from start to finish. These efforts were only partially successful but

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Here, as in the matter of building a one-story try-out ward, the answer which always came back, was "economy." In other words, the money of the taxpayers was to be safeguarded, even though it was many times suggested to the medical board and to other authorities, that these experts would probably save their fee retainers many times over, because of their superior experience and knowledge of hospital construction. One resolution presented to the medical board by the writer and urging such retainer of experts was finally passed but when presented to the board of supervisors by the medical director of the hospital, was accompanied by the medical director's personal recommendation, that the supervisors should not engage such experts. In the light of what has since transpired, it seems more than unfortunate that the valuable knowledge and advice which such experts could have given should not have been constantly at the disposal of those who proceeded with the plans and construction.

Six. The general arrangements of the operating rooms, of the wings and floors in which the different professional services in medicine and surgery were to be located, were also worked out in considerable detail in these conferences between the architects' committee and the board.

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Two Possible Sources of Error.—The above in brief indicate some of the high points in which the medical profession, through the medical board (which may be said to have represented the attending staff), was involved in the construction of this new unit.

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In the matter of this vast amount of money, coming from the pockets of taxpayers, it is proper to state that after the initial bond issue of five million dollars was voted by the citizens, that subsequent money needs for construction costs were met by the yearly placement of a special levy or item in the annual general county tax budget, whereby the moneys needed would be provided. It may be assumed that this method was adopted by the political powers of the county, because in annual tax levies, the taxpayers would notice construction costs far less than they would, had their attention been directly called to the building and its costs through recurrent county hospital bond issues.

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When the Medical Board "Faded" Out of the Picture.—The foregoing events practically covered the period into the year 1927.

Then came a lull or interlude, covering virtually the last two years, during which the advisory medical board may be said to have "faded" out of this hospital construction picture, in much the gradual and soft fashion in which, on the silver screen, certain actors are permitted to pass out of a scene when their supposed usefulness, in the minds of the producers or directors, has come to an end.

During this quiescent period of 1928 and 1929 and up to the present the medical board was not called on to continue the previously somewhat frequent conference meetings with the architects, and was obliged to content itself with monthly board meetings at which applications for leaves of absence by staff members and other routine matters were presented.

* * *

Recent Newspaper Publicity Concerning Hospital Costs.—About the middle of February of the present year, as noted in last month's editorial in CALIFORNIA AND WESTERN MEDICINE, the newspapers of Los Angeles began to print articles about the very high total costs of the new hospital buildings, stating that some of the bids for completion (exclusive of much of the equipment) indicated that the total cost of such construction, instead of being within a ten or eleven million dollar limit, might approximate something like sixteen million dollars!

In this editorial column of CALIFORNIA AND WESTERN MEDICINE it is not possible to go into details concerning the cost of many construction items (in which members of the medical profession, by virtue of the fact that hospitals are built primarily to make it possible for physicians and surgeons to render more efficient service to lay citizens) have a very natural interest. Two or three phases of construction, however, may be worthy of comment, readers being referred to the Miscellany department of this issue, where, under the caption "Clippings from the Lay Press," excerpts may be found which will give more details on the matters here briefly discussed.

It may be of interest to note that the Los An-

geles newspapers have quoted supervisors as stating that the sum of

"\$7,822,055 had either already been expended or obligated by pending contract awards."

Also that

"bids for work, now pending before the county board of supervisors total \$8,686,121."

In the Los Angeles Times of March 4 last, Supervisor Shaw was thus quoted:

"We have already paid the architects more than \$600,000."

The Los Angeles Examiner of March 4 printed:

"Supervisor Beatty stated that the board of supervisors had invested \$792,967 in the Allied Architects." (For professional services in drawing plans and supervising construction.)

But in an editorial entitled "General Hospital Costs," the Los Angeles Times of March 2 stated:

"The incident (the discussion of the supposed total cost of a new hospital unit) has served one good purpose in bringing to public attention the desirability of such expert and disinterested services as are being given the General Hospital project by the board of architects." (!—Exclamation marks are those of the editor.)

Further, in the Los Angeles Evening Express of February 25 appeared the following:

"Bids now before the board which Supervisor Graves declared would all probably be rejected tomorrow, follow:

Cement floor finishing.....	\$ 378,030
Doctors' paging equipment.....	413,610
Refrigeration	198,997
Lathing and plastering.....	1,430,696
Ornamental metal.....	80,998
Kitchen equipment.....	474,466
Marble and tile.....	1,478,280
Albarene (a form of soapstone containing acid-resisting qualities).....	897,275
Miscellaneous equipment.....	694,482"

* * *

Above Estimates and Bids on Certain Construction Costs Most Surprising.—The above are certainly figures of astounding proportions, not the least of the above list being the bid which was submitted on a "paging system for doctors" (the doctors of the attending staff practically being innocent in this matter and knowing little or nothing concerning the elaborate system which seemingly was under consideration for them).

* * *

Cost of the Paging System in the Alameda County Hospital.—When one remembers that in the comparatively new Alameda County Hospital of four hundred beds, designed by the late Doctor Brodrick, the Holzer-Cabot paging system was installed at a cost of "eleven thousand dollars, and we were given to understand that after installing initial parts of the system, units would be cheaper in proportion" (quotation from a personal letter from Doctor Hamlin of Oakland, who gave gratuitous service as superintendent for two years or so) one must necessarily be somewhat bewildered at the bid of \$413,610 which was offered on the equipment of a doctors' paging system for this new building which is being erected for the Los Angeles

County Hospital. It may be taken for granted that in any later criticisms by the public press of such an expenditure that the majority of lay fellow citizens and taxpayers would probably feel that the said expenditure was brought about largely through request or demand of the attending physicians. Yet such an imputation would be most unfair.

* * *

Further References to This Subject in the Miscellany Department of This Issue.—Readers of CALIFORNIA AND WESTERN MEDICINE who are interested in these construction costs of a new hospital building to care for some of the sick poor of Los Angeles County may find further items in the quotations from the lay press which are printed in the Miscellany department of this issue.* A perusal of the same will indicate why the editor closed last month's editorial in CALIFORNIA AND WESTERN MEDICINE with the following words:

"We must all agree that it will be most interesting to note the different influences and effects which this large public hospital, now in course of construction for the care of indigent citizens of Los Angeles County, will have on the lay public, and on private medical practice, both in and beyond the geographical domain of that county."

WILLIAM TAYLOR McARTHUR

1866-1930

Death has again taken from our midst one of the ex-presidents of the California Medical Association. Our genial colleague, William Taylor McArthur of Los Angeles, who was president of our state medical association in 1927, was called from his earthly work on March 11, 1930. For several years, in fact even during his term as president of the California Medical Association, Doctor McArthur, because of poor health, had found it necessary to safeguard and conserve his energy, but this fact, known to his friends, he quietly kept from others.

Doctor McArthur was an excellent type of the true physician—able, gentle, kind, generous and thoughtful; and possessing in addition to all these virtues, a charming and lovable personality that endeared him to all who had the good fortune to meet and to know him, whether in the relationship of patient, colleague, neighbor, friend or fellow citizen. His was a life of quiet, unostentatious uplift. The world and the medical profession are the better for his having lived. *Requiescat in pace.*

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA—ITS REPORT

State Examining Board Now a Division of the Department of Professional and Vocational Standards.—The first annual report of the California Board of Medical Examiners to be brought out since its existence as a division of the Department of Professional and Vocational Standards has just come off the press.

It contains much information worthy of consideration by all members of the medical profes-

sion who believe in accepting their share of responsibility in the maintenance of proper professional standards for practitioners of the healing art. An inspection of the pages of this report indicates how many and difficult are the problems which must be solved by the colleagues who accept service as members of this board.

In the memories of older members of the California Medical Association are recollections of controversies which were centered around our state examining board, and which at times were carried on with much fierceness. In recent years the work of the board of examiners has gone forward so smoothly that a goodly number of members of the California Medical Association almost forget its existence, while others are prone to think that because of the absence of newspaper publicity it must be side-stepping its responsibilities. Such is not the case however. It may be said that our examining board has never rendered more efficient or conscientious service than in recent years, and its members deserve and have the thanks of the medical profession for their loyal and altruistic efforts to maintain proper standards and to carry out the various provisions of the state medical practice act which have been provided to better safeguard the public health.

* * *

Why Should Not This Annual Report Be Printed as a Part of the Yearly Directory?—

Members of the California Medical Association who are interested should write to the California Board of Medical Examiners, 623 State Building, San Francisco, and request a copy of this report. Which suggests the thought that inasmuch as every California physician must pay an annual licensure tax, that this annual report might well be printed in next year's annual directory, a copy of which directory is sent to every licensed physician. The members of the medical profession are not only entitled, but should know what are the activities and problems of this examining board; and since that board is supported not by funds from general taxation sources but by a special levy on members of the profession, no legitimate objection should be raised to such use of printers' ink by either the director of professional and vocational standards, or by any other state executive or executives. If such objection is raised because of presumable legal obstacles, then a proper enabling act should be submitted to the next legislature. In an effort of this kind, the proper officers of the California Medical Association would no doubt be glad to cooperate.

* * *

Excerpts from the Report Printed in This Issue.—In the California Board of Medical Examiners column in this issue are printed some excerpts which indicate how worth while this information is and especially so if the annual report of the board could reach every physician as a part of his yearly directory. It is hoped that the Board of Medical Examiners will see fit to consider, and if possible to adopt the suggestions here made.

* See page 298 of this issue.

MEDICINE TODAY

Current comment on medical progress, discussion of selected topics from recent books or periodic literature, by contributing members. Every member of the California Medical Association is invited to submit discussion suitable for publication in this department. No discussion should be over five hundred words in length.

Allergy

Definition.—That great confusion exists in regard to the use of the term "allergy" is shown by the fact that the editors of the new *Journal of Allergy*, the first number of which appeared in November 1929, have felt it necessary to define the sense in which the term is used in the title of their journal. When von Pirquet and Schick¹ coined the word "allergy" (*allos*, "altered"; *ergia*, "reactivity"), they had in mind the use of a comprehensive term to cover various manifestations of hypersensitiveness observed in human beings, but more especially the altered reactions in man, giving rise to a more rapid appearance of the symptoms of serum disease following a second injection of horse serum. Until comparatively recent years, the term has been employed interchangeably with anaphylaxis, such phenomena as serum disease, asthma, hay fever and food and drug idiosyncrasies being referred to as allergic or anaphylactic manifestations of disease. Indeed so loose had become its employment that allergy, as a descriptive designation of a pathologic state, ceased to possess an established meaning in scientific usage.

The editors of the *Journal of Allergy* define the term as a condition of "specific hypersensitiveness exclusive of anaphylaxis in lower animals." To the physician who has not followed the recent clinical and immunologic studies of this subject, the reasons for such a definition may not be obvious, and may require further elaboration.

That the type of hypersensitiveness which appears spontaneously in human beings (asthma, hay fever, and certain urticarias and eczemas) is remarkably similar to experimental anaphylaxis in animals was early recognized,^{2,3} but the evidence that the two phenomena have fundamental differences has come only from recent immunologic studies.

The term "anaphylaxis" has come to have a special meaning and should be restricted to the condition of induced hypersensitiveness produced in animals by definitely antigenic substances. The mechanism of anaphylactic shock always implies the interaction of a specific antibody-antigen combination. The anaphylactic antibodies are precipitins. The idea that the phenomena now designated as allergic are also the result of an antibody-antigen reaction originated in the theory of von Pirquet and Schick regarding serum allergy, a view which, in point of time, actually preceded the discovery of the mechanism of anaphylaxis. Subsequent immunologic studies have shown, how-

ever, that anaphylactic antibodies are not present in the conditions usually classified under allergy, namely, the asthma-hay fever-eczema group, certain food and drug idiosyncrasies, serum disease and tuberculin hypersensitiveness. Immunologically these conditions are characterized by the presence in the blood of some of them of a skin-sensitizing antibody designated by some workers as *allergin*⁴ and by others as *reagin*.⁵ This mediating, blood-borne body is not a true antibody in the sense that it is not produced under the stimulation of an antigen. By immunologic criteria, therefore, allergy and anaphylaxis are very distinct phenomena.

Of the allergic conditions observed in man, asthma, hay fever and certain eczemas are strictly subject to hereditary influences, while others, serum disease, the tuberculin type of bacterial allergy and dermatitis venenata are not. To the first group of allergic diseases Coca⁶ has given the designation "atopy" (atopia, "a strange disease"). The propriety of classifying as allergic, idiosyncrasy to substances of definite chemical nature, such as drugs or the little understood hypersensitiveness of the individual to other forms of bacterial protein is still a moot question.

Finally, the definition of allergy and its importance in the etiology of disease will be much clarified by adopting, whenever possible, the postulates of Cooke⁷ before assuming or proving that any protein or other chemical substance is a causative factor in a case of hypersensitiveness. In brief these are: first, a history of contact by the individual in some way with the suspected substance in order to permit it to act as an etiologic factor; second, the demonstration of sensitization by a positive local reaction, cutaneous, intradermal or ophthalmic; and third, the reproduction at will of the original allergic manifestation on introduction of the substance, either by inhalation, ingestion, or subcutaneous injection.

SAMUEL H. HURWITZ,
San Francisco.

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Syphilology*

Nitritoid Reactions, Immediate and Delayed—A Technique Reducing the Repeated Use of Control Methods.—A variety of techniques for the control of immediate and delayed nitritoid reactions following the administration of arsphenamin or its derivatives has long been available and well known to all syphilologists. The Bezredka, the injection of atropin sulphate subcutaneously and their combinations and modifications are methods in common use by all of us. The application of these methods in an institution or private practice is frequently a source of time consumption for both the patient and physician, and although extremely practical, represents a technical obstacle which could be agreeably dispensed with. It seems unnecessary in this report to enter into a discussion of such methods, for the literature contains many references which are of unusual interest and bring the subject up to date. It is my desire at this time merely to offer a method which, in our hands, has proved of value. In dealing with a large group of patients, time-consuming treatment is at times a difficult problem. Experiments, therefore, were conducted in an effort to eliminate this elaborate method and to make possible a return of the patient to the usual routine methods of treatment without evidence of reaction.

In a few instances we observed that patients regularly receiving the Bezredka technique did not act unfavorably when such technique was accidentally omitted during the course of treatment. This observation led to a systematic attempt to determine the possibility of gradually "desensitizing" (if such a term could be used) all patients under treatment with the modified Bezredka technique. The method which has been in use in this hospital could well be termed "a modified Bezredka technique," for the principles of that technique are here embodied in combination with the subcutaneous injection of atropin sulphate, after the method described by Stokes. The Bezredka technique largely consists of time intervals between an injection of one-tenth of the total dose of arsphenamin or its derivatives, and a second injection of the remainder of the total dose. Stokes advised the use of the subcutaneous injection of atropin sulphate preceding the first injection of arsphenamin or its derivatives by twenty minutes. The method here offered is based upon a gradual diminution of those time intervals, and also of the amounts of atropin sulphate, as well as an increase in the amount of the arsphenamin or its derivatives

given at the first injection until the time intervals and the atropin sulphate injections are eliminated and the entire dose of the arsphenamin or its derivatives is given at one time. We found that patients reacting to such drugs could readily be placed on such a "cut down" method, and after their sixth treatment tolerated the injection of the arsphenamin or its derivatives in full dosage at one time. The first treatment given a patient placed upon a modified Bezredka technique consists of the subcutaneous injection of atropin sulphate in doses of 1/150 grain to 1/75 grain, depending upon the body weight, and precedes the first injection of the arsphenamin or its derivatives by twenty minutes. The first injection of the latter consists of one-tenth of the total dose, which likewise is dependent upon body weight. A second time interval of twenty minutes is allowed between this injection and the last injection of the arsphenamin or its derivatives. The latter consists of the remainder of the total dose, and is given at one time. This technique is efficient in controlling reactions by both the intravenous and intramuscular routes of administration. While using the technique described by Stokes for the control of nitritoid reactions following intramuscular medication, we found that the placing of the second injection of the drug in exactly the site of the first is unnecessary. Results are the same, without regard to which buttock receives the second injection. The "cut down" method resolves itself into the giving of six treatments at weekly intervals, with the factors noted above so arranged as to eliminate them by the seventh injection. The time intervals are diminished after the following fashion. At the first treatment the interval is twenty minutes; the second, fifteen minutes; the third and fourth, ten minutes; the fifth and sixth, five minutes. The injections of atropin sulphate are diminished from 1/75 grain for the first, second and third treatments to 1/150 grain for the fourth, fifth and sixth treatments. The first arsphenamin injection is increased from one-tenth of the total dose for the first and second treatments to one-fourth for the third and fourth, and one-half for the fifth and sixth. By the seventh treatment the patient is able to receive the entire dose of the arsphenamin or its derivatives without preparation, and can continue from then on in a normal and routine fashion.

A total of twenty-five cases giving evidence of nitritoid reactions, either immediate or delayed, have been observed for a period of time sufficient to render them reactionless by the method described above. Eight of these cases were "cut down" in four treatments, but three of them developed reactions upon the institution of routine methods. The remainder, or seventeen cases, were carried through the sixth treatment, and thereafter failed to develop reactions.

STANLEY O. CHAMBERS,
Los Angeles.

* From the Los Angeles General Hospital.

Tuberculosis

Points on the Value, Safety, and Methods of Giving B. C. G. for Protective Immunization Against Tuberculosis.—Few topics in the field of tuberculosis have assumed so much prominence as the present discussion on the value and safety of Professor Calmette's prophylactic immunization method against tuberculosis.

The B. C. G. vaccine is the discovery or the production of Professor Calmette, the assistant director of the Pasteur Institute in Paris, and his coworker Guérin, a veterinary surgeon. The *Bacillus* of Calmette and Guérin is abbreviated "B. C. G." It consists of living, slightly virulent tubercle bacilli of the bovine type, having been attenuated by being cultured on an ox-bile-glycerin medium for the past twenty-one years.

It is pointed out that from 35 to 90 per cent of children reaching the age of puberty react to tuberculin, and that infants are born with no appreciable resistance to the infection. In many instances, contact with tubercle bacilli leads to progressive disease, ending with an infection large and severe enough to produce death. On the other hand, apparently, if the infant comes in contact with only a few microorganisms and at infrequent intervals, it escapes serious consequences. The latter type of case has apparently been successfully immunized against tuberculosis, due to the fact that he has never been overwhelmed with a host of virulent organisms.

According to Calmette, an infection of mild nature is very desirable. The excessive infections must be avoided and the intervals of periodic implantation well regulated. The microorganism used for producing mild infection should be of low virulence. Calmette is supported by a large following in his belief that the attenuated B. C. G., properly used, is capable of producing this desired immunity. Believing that most of the infections in children take place by the digestive route for the reason that the intestinal mucosa of the infant during the first ten days of life absorbs the microorganisms much more readily than at any other later period, Calmette's vaccinations have been carried on in most cases by feeding the microorganisms to newborn babies. Some were vaccinated by the subcutaneous or the intracutaneous route.

In his series of cases, Calmette claims that not a single fatality has occurred in infants vaccinated with B. C. G. In some earlier publications, he claimed that no tuberculous changes were produced by the vaccination of guinea-pigs. In later publications, however, he admits that tuberculous lesions can be set up, but he adds that in due time the lesions heal completely. He states that no matter what method of inoculation was used, progressive tuberculosis was never produced by the living B. C. G.

On the other hand, a number of cases have been reported by other men in which death from tuberculosis occurred following vaccination, and the deaths have been attributed to infection by the B. C. G. Petroff reports that apparently the bacilli of tuberculosis may assume two forms.

In one form they are comparatively harmless, whereas the other form may be very virulent. This difference may account for the unsatisfactory results which have been reported. A vaccine made from what was supposed to be the harmless tubercle bacilli would have an unfortunate effect on the subject vaccinated if the bacilli suddenly changed to the virulent form.

Kereszturi and Park, in reporting upon their experience with B. C. G., state that one death occurred in a baby whose mother died of miliary tuberculosis soon after the birth of the child, and it was thought that the child may have picked up a blood-stream infection through the placenta.

In general it is found that oral B. C. G. vaccination is relatively simple, quite harmless, and gives some immunity. Due to the facts that the dosage of the vaccine by the oral route cannot be controlled very well and that the oral administration is good only in the newborn, it is believed that the subcutaneous or the intracutaneous injection of the B. C. G. should be superior to the oral method.

Keeping in mind the merits of this treatment and recognizing that it is not foolproof, a safe course should be followed by using the vaccine with extreme care and considering that indiscriminate use of the B. C. G. is probably not justifiable at the present time.

W. E. MACPHERSON,
Loma Linda.

University of California Hospital to Adopt Most Modern X-Ray Film Storage.—In order to further perfect methods of storing x-ray film and to make its x-ray rooms and storage vaults as safe and as modern in equipment as any in the country, the University of California Hospital has prepared plans for additions and changes to cost \$7500.

In making known this program recently, Director Lionel S. Schmitt stated that the National Board of Fire Underwriters has given its unqualified approval of the plans, and that they have been submitted to the San Francisco fire department officials as well.

The University Hospital already maintains a separate underground vault outside of the hospital building proper, the effectiveness of which was proven during the fire of a few months ago. But the additional changes will not only add further safeguards to this vault, but will make it impossible for fires to occur in the x-ray viewing room as was the case this winter.

First of all the concrete walls of the vault will be reinforced with additional layers of fireproof material, and the stored films will be placed in small steel containers on steel racks. Over the top of these racks will be an automatic deluge water system so designed that a sudden rise in the room temperature, about fifteen degrees in a minute, will set them going and promptly flood the room.

Double fireproof doors will be installed, one operated by an automatic check and the other connected with the sprinkler system in such a way that simultaneous to the starting of the sprinklers, the door, if not already closed, is thrust shut.

In addition to these changes in the design of the vault itself, the hospital has adopted a noninflammable film for all future x-ray photography, which will prevent ignition of film in viewing machines. Finally, a limit has been set on the length of storage of inflammable film now being kept for record. Each year the oldest films will be sorted out and thrown away; so that soon, even within the fireproof vault, there will be no inflammable film kept.—*U. C. Clip Sheet.*

Program

THE FIFTY-NINTH ANNUAL SESSION

of the

CALIFORNIA MEDICAL ASSOCIATION

To be held at

DEL MONTE, CALIFORNIA, APRIL 28-MAY 1, 1930

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Guest Speakers at the 59th Annual Session, California Medical Association

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 W. H. Irwin
 J. P. Schell
 U. S. Abbott
 D. I. Aller
 C. O. Mitchell
 C. D. Collins
 Etta Lund
 Orris Myers
 Eugene Le Baron
 F. J. Gundry
 G. R. Fortson
 Walter Bayley
 W. B. Bowman
 Harry V. Brown
 Katherine Close
 Foster K. Collins
 D. M. Ghrist
 F. C. E. Mattison
 *W. T. McArthur
 James F. Percy
 F. M. Pottenger
 B. O. Raulston
 John C. Ruddock
 F. B. Settle
 Eleanor C. Seymour
 Leroy B. Sherry
 R. G. Taylor
 Packard Thurber
 S. M. Alter
 John V. Barrow
 Walter P. Bliss
 R. S. Cummings
 Robert V. Day
 George Dock
 Walter L. Huggins
 William W. Hutchinson
 Louis Josephs
 W. H. Kiger
 Joseph M. King
 Percy T. Magan
 William R. Molony
 C. E. Phillips
 C. W. Rand
 Harlan Shoemaker
 Henry Snure
 C. G. Toland
 B. Von Wedelstaedt

Butte County (1)
 J. O. Chlapella
Contra Costa County (1)
 J. F. Feldman
Fresno County (3)
 A. E. Anderson
 W. F. Stein
 C. M. Vanderburgh
Glenn County (1)
Humboldt County (1)
 Charles C. Falk
Imperial County (1)
 W. W. Apple
Kern County (1)
 J. M. Kirby
Lassen-Plumas County (1)
 Dan Coll
Los Angeles County (36)
 Ralph Byrnes
 Montague Cleaves
 R. M. Dodsworth
 Scott D. Gleeton
 Joseph Goldstein
 G. D. Maner
 Wallace J. Miller
 E. J. Moffitt
 William J. Norris
 R. E. Ramsay
 A. M. Rogers
 W. T. Rothwell
 A. J. Scott
 C. G. Stadfield
 Philip Stephens
 W. B. Thompson
 H. G. Westphal
 R. W. Wilcox
 Harold Witherbee
 I. R. Bancroft
 Fred B. Clarke
 Carl R. Howson
 John C. Irwin
 H. G. Levensgood
 T. C. Lyster
 H. G. McNeil
 R. P. McReynolds
 A. J. Murrieta
 Thomas C. Myers
 John P. Nuttall
 S. N. Pierce
 J. E. Pottenger
 Albert Solland
 J. K. Swindt
 H. B. Tebbetts
 Neal N. Wood

DELEGATES

ALTERNATES

Marin County (1)
 Frank M. Cannon
 John H. Kuser
Mendocino County (1)
 Royal Scudder
 L. K. Van Allen
Merced County (1)
 H. Kylberg
 J. L. Mudd
Monterey County (1)
 W. H. Bingaman
 C. H. Lowell
Napa County (1)
 H. R. Coleman
 George I. Dawson
Orange County (2)
 Dexter R. Ball
 George M. Tralle
 Harry E. Zaiser
 William S. Wallace
Placer County (1)
 C. Conrad Briner
 Carl P. Jones
Riverside County (1)
 Thomas A. Card
 William R. Dorr
Sacramento County (3)
 W. H. Pope
 W. A. Beattie
 Hans F. Schluter
 G. Parker Dillon
 E. W. Beach
 W. K. Lindsay
San Benito County (1)
 R. L. Hull
 E. E. McKay
San Bernardino County (3)
 F. F. Abbott
 S. B. Richards
 W. F. Pritchard
 A. T. Gage
San Diego County (5)
 F. L. Macpherson
 A. J. Thornton
 T. O. Burger
 George B. Worthington
 C. E. Rees
 L. W. Zochert
 B. J. O'Neill
 E. S. Coburn
 W. H. Geistweit, Jr.
 L. H. Redelings
San Francisco County (19)
 Philip H. Arnot
 Edwin L. Bruck
 Elbridge J. Best
 C. Latimer Callander
 Walter W. Boardman
 William R. P. Clark
 LeRoy Brooks
 Elizabeth A. Davis
 Harold Brunn
 Louise B. Deal
 Edward C. Bull
 William Dock
 William E. Chamberlain
 Randolph G. Flood
 Howard W. Fleming
 Mary E. Glover
 Henry W. Gibbons
 Irving S. Ingber
 Alexander S. Keenan
 Albert E. Larsen
 William J. Kerr
 Robert C. Martin
 Alson R. Kilgore
 Stanley H. Mentzer
 Eugene S. Kilgore
 Lewis Michelson
 Langley Porter
 Kaspar Pischel
 George K. Rhodes
 I. Walton Thorne
 Henry A. L. Ryfkogel
 Edward Topham
 Karl L. Schaupp
 Edward B. Towne
 William E. Stevens
 William C. Voorsanger
 John H. Woolsey
 Rodney A. Yoell
San Joaquin County (2)
 J. W. Barnes
 R. T. McGurk
 B. J. Powell
 C. V. Thompson
San Luis Obispo County (1)
 Gifford L. Sobey
 G. J. Teass
San Mateo County (1)
 Edward F. Ziegelman
 William H. Murphy
Santa Barbara County (2)
 Henry J. Ullmann
 William J. Mellinger
 Hugh F. Freidell
 William H. Eaton
Santa Clara County (3)
 Edwin M. Miller
 C. K. Canelo
 A. A. Shufelt
 H. E. Dahleen
 A. H. MacFarlane
 J. H. Kirk
Santa Cruz County (1)
 L. Liles
 P. T. Phillips
Shasta County (1)
 Ferdinand Stabel
 Earnest Dozier
Siskiyou County (1)
 C. C. Dickinson
 Charles Pius
Solano County (1)
 Ream S. Leachman
 J. Edward Hughes
Sonoma County (1)
 J. Walter Seawell
 Stewart Z. Peoples
Stanislaus County (1)
 J. W. Morgan
 R. E. Maxwell
Tehama County (1)
 Frank J. Bailey
 Frank L. Doane
Tulare County (1)
 G. B. Furness
 H. G. Campbell
Tuolumne County (1)
 Homer D. Rose
 William L. Hood
Ventura County (1)
 Louis W. Achenbach
 John W. Bardill
Yolo-Colusa County (1)
 Fred R. Fairchild
 J. E. Harbinson*
Yuba-Sutter County (1)
 P. B. Hoffman
 F. W. Didier

* Deceased.

HOUSE OF DELEGATES MEETINGS

FIRST MEETING PROGRAM

Copper Cup Room, Hotel Del Monte, Monday,
April 28, 8 p. m.

Open to Members of the California Medical Association

ORDER OF BUSINESS

1. Call to order.
 2. Report of Credentials Committee and roll call.
 3. Report of President Morton R. Gibbons.
 4. Appointment of the two Reference Committees and the Credential Committee by the Speaker of the House of Delegates.
 5. Report of the Council, Oliver D. Hamlin, Chairman.
 6. Report of the Committee on Scientific Program, Emma W. Pope, Chairman.
 7. Report of the Auditing Committee, T. Henshaw Kelly, Chairman.
 8. Report of the Secretary, Emma W. Pope.
 9. Report of the Editors, George H. Kress, Emma W. Pope.
 10. Report of the General Counsel, Hartley F. Peart.
 11. Unfinished business.
 12. New business. (Introduction of resolutions.)
 13. Reading and adoption of minutes.
- Adjournment.

SECOND MEETING PROGRAM

Copper Cup Room, Hotel Del Monte, Wednesday,
April 30, 8 p. m.

Open to Members of the California Medical Association

ORDER OF BUSINESS

1. Call to order.
2. Roll call.

3. Announcement of the place of session, 1931.

4. Election of:

- (a) President-elect.
- (b) Speaker of House of Delegates.
- (c) Vice-speaker of House of Delegates.
- (d) Councilors.

Second District—Incumbent, William Duffield, Los Angeles (1930).

Fifth District—Incumbent, Alfred L. Phillips, Santa Cruz (1930).

Eighth District—Incumbent, Junius B. Harris, Sacramento (1930).

Councilors-at-Large—Incumbent:

Ruggles A. Cushman, Santa Ana (1930).
T. Henshaw Kelly, San Francisco (1930).

(e) Delegates and alternates to American Medical Association for sessions, 1931-1932.

Incumbents:

Delegates
Victor Veeki
San Francisco
Percy T. Magan
Los Angeles
Junius B. Harris
Sacramento

Alternates

William E. Stevens
San Francisco
Charles D. Lockwood
Pasadena
John Hunt Shephard
San Jose

(f) Program Committee:

Incumbent—Robert V. Day, Los Angeles.

5. Report of Reference Committee on Reports of Officers and Standing Committees.

6. Report of the Reference Committee on Resolutions and New Business.

7. Presentation of President.

8. Presentation of President-elect.

9. Reading and adoption of minutes.

Adjournment.

GENERAL INFORMATION*

Registration and Information.—The registration and information desk is located in the lobby, Hotel del Monte. All persons attending the convention, whether members or not, are requested to register immediately on arrival. Beginning Monday, April 28, registration secretaries will be on duty daily from 9 a. m. until 5 p. m.

Guests and Visitors.—All guests and visitors are requested to register. All general meetings and scientific meetings are open to visitors and guests.

Badges.—Four kinds of badges will be issued by the registration bureau:

1. **Members.**—Only active, associate, retired or honorary members of the California Medical Association will be issued the usual membership badge. Members must show membership cards when they register.

2. **Guest.**—A special badge will be issued to all fraternal delegates, visiting physicians, wives of members, and technical specialists who are attending the 1930 session.

3. **Delegates and Alternates.**—The usual official badge is provided for this purpose, and will be issued only to persons authorized to wear it.

4. **Councilors.**—An official badge is provided for all officers and members of the Council.

Membership Cards.—Every member in good standing in the California Medical Association has been issued an official membership card for 1930. Present membership card at registration desk.

Suggestions and Constructive Criticism.—The officers and committees have tried to do everything possible to make the session a success. Suggestions and constructive criticism calculated to make future sessions more useful will be welcomed by any of the officers. Complaints of whatever character should be made to the registration desk, where they will receive attention.

Social Program.—The social program is in the hands of the Arrangements Committee, and is published at the end of this program.

Press Representatives.—Accredited press representatives are welcome, and they will be accorded every possible courtesy.

Publicity.—All publicity is in the hands of a Publicity Committee. It is requested that all persons having matter of "news" value report it to this committee. It is particularly requested that all "news" about any phase of the convention be given out through the official committee, and in no other way.

* See page 283 for entertainment program, golf tournament, etc.

Exhibits.—Only advertisers in California and Western Medicine are permitted to exhibit at the annual session.

Rules Regarding Papers and Discussions at the State Meeting.—Upon recommendation of the Executive Committee, the following rules regarding papers have been adopted by the Council:

1. All papers read before a section of an annual session are the property of California and Western Medicine.

2. The maximum time that may be consumed by any paper is fifteen minutes, provided that not to exceed ten minutes' latitude may be allowed invited guests at the discretion of the presiding chairman.

3. The maximum time permitted any individual to discuss a paper is four minutes. This also applies to the author in closing his discussion. No speaker may discuss more than once any one subject.

4. A copy of each and every paper presented at the state meeting must be in the hands of the chairman or secretary of the section or in the hands of the general secretary before the paper is presented.

5. All papers read at the annual meeting shall be published in full in California and Western Medicine as soon after the meeting as space will permit. At the option of the author and editor, an abstract of the paper of about one column in length may be published as soon as possible after the meeting with reprints in full of the entire paper (the cost of setting up type for the reprint to be borne by the Association, and all other costs to be borne by the author).

6. Articles are accepted for publication on condition that they are contributed solely to California and Western Medicine. Authors desiring to publish their papers elsewhere than in the journal may have their manuscripts returned to them upon written request to the state secretary.

7. No paper will be accepted by the General Program Committee nor by Section Program Committees unless accompanied by a synopsis of not to exceed fifty words.

8. Papers shall not be "read by title."

9. No member may present more than one paper at any state meeting, provided that a member may be a collaborator on more than one paper, if these papers are presented by different authors.

10. Failure on the part of an author to present a paper precludes acceptance of future papers from such author for a period of two years, unless the author explains to the satisfaction of the Executive Committee his inability to fulfill his obligation.



LORRULI RETHWILM
Chairman Anesthesiology
Section



SAMUEL AYRES, JR.
Chairman Dermatology and
Syphilology Section



BARTON J. POWELL
Chairman Eye, Ear Nose, and
Throat Section



WALTER P. BLISS
Chairman General Medicine
Section



CLARENCE G. TOLAND
Chairman General Surgery
Section



CHARLES A. DUKES
Chairman Industrial Medicine
and Surgery Section

SCIENTIFIC EXHIBIT

A Scientific Exhibit of gross and microscopic specimens, illustrating the Mycoses, will be demonstrated in the corridor adjacent to the Club Room, together with roentgenologic pictures and charts, and gross specimens illustrating various interesting phases of pathology. Exhibit will be personally demonstrated.

General Outline of Various Meetings and Entertainment

	9-11:30 a. m.	11:30-1 p. m.	1-2:30 p. m.	2:30-5 p. m.	8 p. m.
Sunday				Council, Room 722, 2 p. m.	Council, Room 722
Monday	Golf Del Monte Links	Golf	General Meeting	Section Meetings Council, Room 722	House of Delegates Copper Cup Informal Dance Auditorium
Tuesday	Section Meetings, Council Room 722	General Meeting	Pathology Section Luncheon	Golf at Del Monte Seventeen-mile Drive	7 p. m. President's Dinner Dance
Wednesday	Section Meetings, Council Room 722	General Meeting	Pathology Section Luncheon Pediatric Section Luncheon	Golf at Pebble Beach Links 4 p. m. Tea for Ladies Monterey Peninsula Country Club	House of Delegates Copper Cup Bridge and Informal Dance
Thursday	Section Meetings, Council Room 722				



THOMAS G. INMAN
Chairman Neuropsychiatry
Section



KARL L. SCHAUPP
Chairman Obstetrics and
Gynecology Section



W. T. CUMMINS
Chairman Pathology and
Bacteriology Section



GUY L. BLISS
Chairman Pediatrics Section



CHARLES P. MATHÉ
Chairman Urology Section

MEETINGS, DINNERS, AND LUNCHEONS

Meetings of the House of Delegates.—Monday and Wednesday evenings, April 28 and 30, at 8 p. m. in Copper Cup Room, Hotel Del Monte.

Council Meetings—Room 722:

First meeting, Sunday, April 27, 2 p. m.
Second meeting, Sunday, April 27, 8 p. m.
Third meeting, Monday, 2:30 p. m.
Fourth meeting, Tuesday, 9 a. m.
Fifth meeting, Wednesday, 9 a. m.
Sixth meeting, Thursday, 9 a. m.

General Meetings.—The public is invited to attend all general meetings:

Monday, 1 to 2:30 p. m.—Presidential addresses, Auditorium.

Tuesday, 11:30 a. m. to 1 p. m.—Addresses, by invited guests, Auditorium.

Wednesday, 11:30 a. m. to 1 p. m.—Addresses, by invited guests, Auditorium.

Organization Meetings of All Standing Committees.—Members of all Standing Committees should meet in the

Lounge early on Thursday morning to organize for the coming year by the election of a chairman and secretary, and appointment of advisory members—and to discuss plans for the following year's work.

Dinners

President's Dinner Dance.—Tuesday evening, dining room and ballroom, Hotel Del Monte, 7 p. m. Make reservation at Registration Desk.

Luncheons

Pathology Section Luncheon.—Tuesday, April 29, Copper Cup Room, to which guests, officers of the California Medical Association, and members of the Section on Surgery are invited. Members of the Section on Pathology are requested to attend the luncheon on Wednesday, Copper Cup Room, at which Dr. Z. E. Bolin will present "Pathology and Legal Medicine."

Pediatrics Section Luncheon.—Wednesday, April 30, which all members of the Section are requested to attend. **Fraternity, College, and Special Luncheons.**—Announcements of any such will be placed on registration desk bulletin board.

DIAGRAM OF SECTION MEETINGS—FOUR-DAY SESSION

	Auditorium	Garden Room	Club Room	Copper Room	Children's Playroom "A"	Tower Room	Children's Playroom "B"	Room 723
April 28 2:30-5:30 p. m.	Medicine	Surgery	Pathology	Pediatrics	Eye, Ear, Nose and Throat	Gynecology	Dermatology	
April 29 9-11:30 a. m.	Medicine	Surgery and Pathology Union Meeting (Weidman)	Industrial Medicine and Surgery	Radiology	Eye, Ear, Nose and Throat	Urology	Dermatology	Anesthesiology
April 30 9-11:30 a. m.	Medicine and Pediatrics Union Meeting (Marriott)	Neuropsychiatry (Kempff)	Pathology (Exhibit)	Radiology	Obstetrics	Urology		Anesthesiology
May 1 9-11:30 a. m.	Medicine	Surgery		Neuropsychiatry		Industrial Medicine and Surgery		

GENERAL MEETINGS

All General Meetings will be held in the Auditorium

FIRST GENERAL MEETING

Monday, April 28, 1 p. m.

1. *Invocation*—Rev. G. M. Cutting, Pastor of Del Monte Chapel.
2. *President's Annual Address*—Morton R. Gibbons, M. D.

SECOND GENERAL MEETING

Tuesday, April 29, 11:30 a. m.

1. *The Value of Radiotherapy in Mediastinal Tumors*—A. U. Desjardins, M. D., Assistant Professor of Radiology, Mayo Clinic, Rochester.

2. *The Clinical Application of Recent Studies Concerning Chemical Equilibrium in the Body*—McKim Marriott, M. D., Dean and Professor of Pediatrics, Washington University, St. Louis.

THIRD GENERAL MEETING

Wednesday, April 30, 11:30 a. m.

1. *Cretinism*—George M. Curtis, M. D., Associate Professor of Surgery, The University of Chicago.
2. *The Yellowing Dermatoses, With Special Reference to Xanthomas*—Fred D. Weidman, M. D., Professor of Dermatology, University of Pennsylvania, Philadelphia.

SECTION MEETINGS

See Section Index Below

ANESTHESIOLOGY SECTION

LORRULI A. RETHWILM, M. D., Chairman
2217 Webster Street, San Francisco

WILLIAM W. HUTCHINSON, M. D., Secretary
1202 Wilshire Medical Building
1930 Wilshire Boulevard, Los Angeles

First Meeting—Room 723

Tuesday, April 29, 9 to 11:30 a. m.

1. Chairman's Address—*Report on Use of Sodium-amyl-ethyl-barbiturate*—Lorruli A. Rethwilm, M. D., San Francisco.

2. *Chemical Adjunct to Anesthesia*—Chauncey D. Leake, Ph. D., University of California Medical School, San Francisco.

Pre-anesthesia predicates design to depress the central nervous system to basic level for anesthesia. Alkaloid group, the coal tar analgesics, alcohol derivatives and the barbiturates. The position of atropin for anesthetics premedicate. Supporting premedicate affecting general metabolism. Rational application of present knowledge.

Discussion opened by M. L. Tainter, M. D., San Francisco.

3. *Phenolphthalein Excretion After Administration of Sodium-iso-amyl-ethyl-barbiturate*—Ludwig A. Emge, M. D., 2000 Van Ness Avenue, San Francisco.

This paper will discuss the phenolphthalein excretion in operative and obstetrical cases following use of sodium-iso-amyl-ethyl-barbiturate and compare it to similar tests in operative cases managed with scopolamin-morphin and nitrous-oxid anesthesia.

4. *Tribromethanol as a Preoperative Narcotic*—Dorothy A. Wood, M. D., 1390 Seventh Avenue, San Francisco.

Description of the drug; calculation of the dosage; technique of administration. Safety of its use as a narcotic contrasted with its toxicity when used as an anesthetic. Case reports. Reaction of patients; effect upon pulse, blood pressure, and respiration; recovery of patient. Amount of anesthetic agent apparently diminished when tribromethanol is used as preliminary medication.

5. *Preoperative Medication*—Mary E. Botsford, M. D., 807 Francisco Street, San Francisco.

Valuation of the newer drugs for preliminary medication. Comparative merits of the barbiturates and avertin. A discussion of the anesthetic properties of these two agents. Their use in combination with spinal.

Second Meeting—Room 723

Wednesday, April 30, 9 to 11:30 a. m.

1. *Modern Controllable Spinal Anesthesia—Basic Principles Involved*—Franklin I. Harris, M. D., 916 Four Fifty Sutter, San Francisco, and Edward H. Bolze, M. D., Room 1219, 450 Sutter Street, San Francisco.

Review of development; causes of former failures and fatalities. Pharmacology of novocain; physiochemical action. Action and effect of ephedrin; necessity of Trendelenberg position. Control of duration and height of anesthesia. Simplified technique confirmed by two hundred and fifty inductions. (Lantern slides.)

Discussion opened by Harry W. Martin, M. D., Los Angeles.

2. *Circulatory Responses of Ephedrin and Related Drugs—Modifications by Local Anesthesia*—M. L. Tainter, M. D., Stanford University School of Medicine, San Francisco.

Cocain, not procain and butyn, subcutaneously in infiltration anesthesia doses, profoundly modifies circulatory responses to epinephrin, ephedrin, and related drugs. Modifications consist of sensitization, desensitization, or complete abolition of circulatory response, according to drug used. Phenomena important in systemic reactions from cocain, and in treating accidents of local anesthesia. (Lantern slides.)

Discussion opened by Chauncey D. Leake, Ph. D., San Francisco.

3. *Infiltration Anesthesia in Obstetrical Surgery*—Sterling N. Pierce, M. D., 1200 South Alvarado Street, Los Angeles.

Inhalation anesthesia in surgical obstetrics has certain definite disadvantages, avoided by the use of local anesthesia. Certain positive advantages obtained by infiltration method; striking simplicity. Conclusions based upon several hundred cases. Author believes that the results in these cases attest to the adequacy of the method for obstetrical anesthesia, and to its safety.

Discussion opened by Lyle G. McNeile, M. D., Los Angeles.

4. Business meeting.

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DERMATOLOGY AND SYPHILOLOGY SECTION

SAMUEL AYRES, JR., M. D., Chairman
517 Westlake Professional Building
2007 Wilshire Boulevard, Los Angeles
GEORGE F. KOETTER, M. D., Secretary
812 Medical Office Building
1136 West Sixth Street, Los Angeles

First Meeting—Children's Playroom B Monday, April 28, 2:30 to 5:30 p. m.

1. Chairman's Address—*The Kidney Function in Pemphigus*—Samuel Ayres, Jr., M. D., Los Angeles.

Phenolsulphonphthalein excretion when given intramuscularly and intravenously, urine examination, blood chemistry. Recent ideas concerning the etiology and treatment of pemphigus. The question of liver involvement. The significance of 'phthalein excretion in relation to arsenical therapy.

2. *Dermatological Psychoses*—C. Ray Lounsberry, M. D., 1111 Medico-Dental Building, 233 A Street, San Diego.

Introduction. Review of fundamentals in classical case of dermatitis, welding it closely into a psychotic state. Biographical sketch from birth to development of psychotic dermatitis in later adolescent period of life. Etiology in classical case. Diagnosis and treatment.

Discussion opened by Samuel Ayres, Jr., M. D., Los Angeles.

3. *Dermatology for Nurses*—Ernest Dwight Chipman, M. D., 501 Union Square Building, 350 Post Street, San Francisco.

Lecturer to nurses in training schools confronted with problem of teaching students enough to satisfy State Board requirements. Knowledge of purpura, pemphigus, and pellagra necessary; but dermatological dressing seemingly not. Teaching of nurses should have for objective making of good nurse rather than poor dermatologist. Article outlines practical treatment of subject with hope of constructive discussion.

Discussion opened by George Culver, M. D., San Francisco.

4. *Erythema Induratum*—Ernest K. Stratton, M. D., 414 Medico-Dental Building, 490 Post Street, San Francisco.

Report of a case associated with a chronic pneumonia (the location of which is probably the site of an old tuberculosis); tuberculous nodules on sclera, as well as a squamous cell epithelioma of skin.

Discussion opened by Hiram E. Miller, M. D., San Francisco.

5. *Trichorrhexis Nodosa as a Clinical Problem*—Charles R. Caskey, M. D., 715 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

Foreword.—Report of findings in few cases to stimulate research. Definition of trichorrhexis nodosa, trichoclasia, and trichoptilosis. Various etiology theories—trophic, neurotic, mechanical, parasitic. Case reports. Conclusions: findings suggestive; not conclusive. Possibility of disease being caused by different but closely allied organisms. Plea for concerted research into this and other causes of alopecia. (Lantern slides.)

Discussion by Stanley O. Chambers, M. D., Los Angeles.

Second Meeting—Children's Playroom B Tuesday, April 29, 9 to 11:30 a. m.

1. *Gastric Analysis in Acne Rosacea*—N. N. Epstein, M. D., Room 1304, 450 Sutter Street, San Francisco.

Gastric analysis studies have been made on a group of patients with acne rosacea, using the alcohol test-meal and the histamine method of stimulating gastric secretion. In a large number of these cases the gastric acidity was low. Clinical improvement followed the administration of hydrochloric acid and pepsin.

Discussion opened by Garnett Cheney, M. D., San Francisco.

2. *Syphilis as a Moral, Economic and Teaching Problem*—Stanley O. Chambers, M. D., 1260 Roosevelt Building, 727 West Seventh Street, Los Angeles.

Modern problems in syphilis outlined. Attempt made to suggest methods for preventive control. These phases obviously represent more than drug values in the control of syphilis. Teaching of modern syphilology to layman offers greater efficiency in control of disease and is real step in direction of eradication.

Discussion opened by Ernest D. Chipman, M. D., San Francisco.

3. *Carotinemia*—Hiram E. Miller, M. D., 809 Fitzhugh Building, 384 Post Street, San Francisco.

Carotinemia is a yellowish discoloration of the skin seen generally on the face, palms, and soles, but may cover the entire body. It is frequently associated with diabetes. Differential diagnosis, methods of testing for the presence of carotin, clinical significance of the condition, etc., will be discussed.

Discussion opened by George F. Koetter, M. D., Los Angeles.

4. *Statistical Study of Three Thousand Cases of Acne*—Ruby L. Cunningham, University of California Infirmary, Berkeley, and C. J. Lunsford, M. D., 3115 Webster Street, Oakland.

Twelve thousand five hundred and twenty-six students at the University of California at Berkeley showed 2978 had acne. Report of a statistical study of these 2978, using 3170 as controls. Viewed from standpoints of age distribution, weight correction, complexion, distribution, lymph glands, menstrual history, and other related conditions, such as foci of infection, allergy, constipation, thyroid gland, operations, etc.

Discussion opened by N. N. Epstein, M. D., San Francisco.

5. *Motion Picture Demonstration of Selected Dermatological Cases From Stanford Medical School Skin Clinic*—Harry E. Alderson, M. D., 320 Medico-Dental Building, 490 Post Street, San Francisco.

EYE, EAR, NOSE, AND THROAT SECTION

BARTON J. POWELL, M. D., Chairman
510 Medico-Dental Building, Stockton
ANDREW B. WESSELS, M. D., Secretary
1305 Medico-Dental Building
233 A Street, San Diego

First Meeting—Children's Playroom A Monday, April 28, 2:30 to 5:30 p. m.

1. Chairman's Address—*Missed Intra-Ocular Foreign Bodies*—Barton J. Powell, M. D., Stockton.

Report of several cases of missed intra-ocular foreign bodies and importance of systematic examination of all eye injuries, regardless of history, with x-ray, ophthalmoscope, magnet, and localizing apparatus of Dr. William M. Sweet.

2. *The Ocular Findings in a Group of Unselected Diabetics*—H. Claire Shepardson, M. D., 204 Fitzhugh Building, 384 Post Street, San Francisco, and Joseph W. Crawford, M. D., Room 1635, 450 Sutter Street, San Francisco.

History of fifty proved diabetics carefully worked up, both as to the extent of the diabetes, the presence or absence of complicating

diseases as arteriosclerosis and renal disease, and the routine studies of the eyes in each.

Discussion opened by George N. Hosford, M. D., San Francisco.

3. *The Importance of a Correct Diagnosis in Operations on the Ocular Muscles*—Joseph L. McCool, M. D., 450 Sutter Street, San Francisco.

Convergent squint and phorias apparently result of faulty coordination of converging and diverging muscles; in reality, secondary to vertical abnormalities. Knowledge of muscle affected essential in surgical treatment. (Lantern slides of anatomy and physiology of eye muscles.)

Shortening of underacting muscle; guarded tenotomy or recession of opponent in same eye, or associated antagonist in fellow eye.

Discussion opened by Roderic O'Connor, M. D., Oakland.

4. *Personal Convictions Regarding Cataract Operations*—Hans Barkan, M. D., and Otto Barkan, M. D., 921 Medico-Dental Building, 490 Post Street, San Francisco.

Methods of procedure adopted at present as worked out from experience with several methods. Reasons for methods employed and against those not employed.

Discussion opened by Dwight H. Trowbridge, M. D., Fresno.

5. *Recurrent Retinal Hemorrhages*—Theodore C. Lyster, M. D., Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

Recurrent retinal hemorrhages in young adults seen frequently. After trauma, lues, or probable focal cause (other than pulmonary) are excluded, a relatively large group probably tuberculous, and frequently with latent involvement of peribronchial glands remains. Other signs usually absent. Retinal tuberculosis, rare. Positive evidence secured with difficulty. Prognosis guarded, but relatively favorable, depending upon the duration and extent of involvement. Case histories.

Discussion opened by Wallace R. Briggs, M. D., Sacramento.

Second Meeting—Children's Playroom A

Tuesday, April 29, 9 to 11:30 a. m.

1. *Management and Treatment of Otitis Media*—Clyde E. Harner, M. D., 923 Security Building, Long Beach.

Keynote of treatment should be conservatism, but not "hysterical" conservatism. Early incision of membrana tympani essential. Light general anesthesia preferable. Widespread use of phenolized glycerin only measure for relieving pain. Careful irrigation preferable to "dry" treatment. Treatment of throat and nasopharynx important. Removal of adenoids sometimes necessary. Oily drops in nose of infants should not be used as routine. Conclusions and summary.

Discussion opened by R. C. Martin, M. D., San Francisco.

2. *Low-Grade Ethmoiditis as the Cause of Certain Eye Conditions*—Wallace B. Smith, M. D., 812 Medico-Dental Building, 490 Post Street, San Francisco.

Sinuses in general; and their relation to focal infection diseases with especial reference to eye diseases. Low-grade ethmoid infection as cause of certain cases of postbulbar neuritis with central scotoma. Literature. Discussion of the several theories of mode of origin. Detailed report of the nose findings.

Discussion opened by Dohrmann K. Pischel, M. D., San Francisco.

3. *Carcinoma of the Larynx*—Simon Jesberg, M. D., 500 South Lucas Avenue, Los Angeles.

The incidence of carcinoma of the larynx;

the management and the duty of the doctor to his patient in this type of case.

Discussion opened by R. S. Tillotson, M. D., Woodland.

4. *Visual Disturbances Associated with Influenza*—Clifford B. Walker, M. D., 410 Auditorium Building, 427 West Fifth Street, Los Angeles.

Study of a group of cases which might be classed as idiopathic retrobulbar neuritis but which really have a virus infection of nasal origin, sometimes accompanied by a variable degree of gripe, or even encephalitic symptoms with coryza or sinusitis of insignificant or minor degree. Perimetric studies and differentiation from encephalitis with or without lethargica, sinusitis, and multiple sclerosis, ophthalmoplegia without migraine.

Discussion opened by M. F. Weymann, M. D., Los Angeles.

GENERAL MEDICINE SECTION

WALTER P. BLISS, M. D., Chairman
407 Professional Building
65 North Madison Avenue, Pasadena

ERNEST H. FALCONER, M. D., Secretary
316 Fitzhugh Building
384 Post Street, San Francisco

First Meeting—Auditorium

Monday, April 28, 2:30 to 5:30 p. m.

1. *Heart Rate and Size—Their Importance to the Physician*—William Dock, M. D., Stanford Hospital, San Francisco.

Recent studies of cardiac output and velocity of blood-flow have shifted the interest from other factors in connection with heart failure, its cause and its treatment. The heart volume and rate alone are significant in determining the energy spent by the heart. The importance of these facts in the diagnosis and treatment of heart conditions is discussed.

Discussion opened by A. S. Granger, M. D., Los Angeles.

2. *Eunuchoid Syndromes*—Hans Lissner, M. D., 208 Fitzhugh Building, 384 Post Street, San Francisco.

Definition: Distinguished from eunuchism; the preadolescent type in boys and girls; the postadolescent types in men and women; subjective symptoms; objective physical findings and roentgenological and other laboratory findings. Prognosis and treatment. Presentation of typical cases. (Lantern slides.)

3. *Allergic Toxemia and Migraines—Food Allergy a Cause*—Albert H. Rowe, M. D., 242 Moss Avenue, Oakland.

Allergic toxemia, characterized by marked mental confusion, irritation, nervousness, lack of initiative, weakness and aching of the body not uncommonly due to food allergy. Frequent in patients with other allergic manifestations. Family history of allergy not necessary requisite for allergic toxemia. Report of migraine and headaches due to food allergy during four years in private practice.

Discussion opened by Walter W. Boardman, M. D., San Francisco.

4. *Disturbances of Visual Pathways in Temporal Lobe Lesions*—Harry A. Cave, M. D., San Diego. (By invitation.)

This paper is based upon a study of a series of four cases of temporal lobe tumors in which the neurological findings were insufficient to localize the neoplasm accurately. By interrupting the visual pathways on their way to the occipital cortex, lesions of the temporal lobes produce hemianopic defects in the visual fields which make localization of the tumors possible.

Discussion opened by Howard C. Naffziger, M. D., San Francisco.

5. *Giardiasis in Children*—Sam J. McClendon, M. D., 2001 Fourth Street, San Diego.

Report based upon study of twenty-three cases in children. No definite characteristic symptoms ascribed to infection; indefinite gastro-intestinal symptoms, urinary disturbances, nervousness, and irritability are found in varying degrees. Pathogenicity of flagellate proved by finding of giardia in stool and clearing up of symptoms with effective treatment by bismuth salicylate, treparsol and stovarsol, with a nonirritating diet.

Discussion opened by John V. Barrow, M. D., Los Angeles.

Second Meeting—Auditorium

Tuesday, April 29, 9 to 11:30 a. m.

1. *Pulmonary Tuberculosis—Clinical Classification*—Sidney J. Shipman, M. D., Medico-Dental Building, 490 Post Street, San Francisco.

Older classifications based largely upon extent of lesion or gross anatomical change as in Turban classification and classification of the American Sanatorium Association, which, however, attempted to unite extent of lesion with symptomatology or activity. Most valuable classification based upon actual pathology as well as extent; this furnishes valuable information for prognosis or treatment.

Discussion opened by Chesley Bush, M. D., Livermore.

2. *Hypochloremia*—George Morris Curtis, M. D., University of Chicago. (By invitation.)

3. *Arthritis*—Rodney F. Atsatt, M. D., 1421 State Street, Santa Barbara.

The treatment of arthritis is a problem which general medicine must supervise. The specialist should not be allowed to overburden the patient's power of endurance. Metabolic disturbances are the keynote in many cases, but fatigue is an important etiological factor. Proper physiotherapy alleviates much pain and overcomes many deformities.

Discussion opened by William J. Kerr, M. D., San Francisco.

4. *Undulant Fever*—Karl F. Meyer, Ph. D., Hooper Foundation for Medical Research, San Francisco. (By invitation.)

A critical discussion of the bacteriology and epidemiology of undulant fever in the light of recent observations, experimental studies and inquiries made in California and abroad.

Discussion opened by John Carroll Ruddock, M. D., Los Angeles.

5. *Late Lues Treated with a Single Strain of Malaria—Analytical Evaluation of Therapeutic Results in Four Hundred Cases*—Ross Moore, M. D., 915 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

Late lues is a new biological and therapeutic division of the clinical course of syphilis. This series of cases is separated into two parts—late lues, in which treatment is beneficial; and terminal lues, in which treatment is nonbeneficial, the object being to create a new concept of syphilis, thereby making its therapeutics more accurate.

Discussion opened by H. G. Mehrtens, M. D., San Francisco.

Third Meeting—Auditorium

Union Meeting of General Medicine and Pediatrics Sections

Wednesday, April 30, 9 to 11:30 a. m.

Program printed under second meeting of Pediatrics Section. See page 281.

Fourth Meeting—Auditorium

Thursday, May 1, 9 to 11:30 a. m.

1. *Agranulocytic Angina with Apparent Cure*—George A. Gray, M. D., 209 St. Claire Building, San Jose.

A short summary of this unusual group of cases with a contribution to the therapeutic problem of agranulocytosis. A case report of an apparent cure following treatment with large doses of leukocytic extract.

Discussion opened by Herbert C. Moffitt, M. D., San Francisco.

2. *Raynaud's Disease*—William J. Kerr, M. D., University of California Hospital, San Francisco.

The paper will take up recent physiological studies on patients with varieties of Raynaud's disease which indicate the disease is a local manifestation of the failure of the blood vessels to react to cold. The vasoconstrictor influence is of little, or no, importance. Suggestions for treatment will be outlined.

Discussion opened by C. Latimer Callander, M. D., San Francisco.

3. *Acute Yellow Atrophy of the Liver*—Verne R. Mason, M. D., 838 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.

Report of twenty cases of acute hepatic degeneration. Discussion of etiology and increasing incidence of the disease. Symptomatology of hepatic insufficiency. Possibility of recovery from mild attacks.

Discussion opened by Fred H. Kruse, M. D., San Francisco.

4. *Some Experiences with Fecal Vaccines*—William H. Strietmann, M. D., Strad Building, 230 Grand Avenue, Oakland.

Paper deals with the use of fecal vaccines for arthritis; method of W. B. Wherry, antigens from anaerobic and partial tension organisms, also aerobic. Skin tests performed. Interesting effects noted in skin lesions associated with arthritis. Report of cases.

5. *The Business of Medicine*—Rexwald Brown, M. D., 1421 State Street, Santa Barbara.

Hippocratic Code has fashioned mantle of tradition. Medicine challenged to justify position with relation to programs of other social forces. Medicine must develop statesman-like leadership. Physicians enmeshed in economic and administrative departments. Medical service expensive to wealthy, to white-collar class, and to indigents.

Discussion opened by William Duffield, M. D., Los Angeles.

GENERAL SURGERY SECTION

CLARENCE G. TOLAND, M. D., Chairman

902 Wilshire Medical Building

1930 Wilshire Boulevard, Los Angeles

SUMNER EVERINGHAM, M. D., Secretary

400 Twenty-Ninth Street, Oakland

CLARENCE E. REES, M. D., Assistant Secretary

2001 Fourth Street, San Diego

First Meeting—Garden Room

Monday, April 28, 2:30 to 5 p. m.

1. *Surgical Correction of Cleft Lip and Palate*—Albert D. Davis, M. D., 1001 Howard Building, 209 Post Street, San Francisco.

Types. Etiology. Time and sequence of operations. Failures and their prevention. Speech training and orthodontia. Lengthening the palate. (Lantern slide demonstration of cases.)

Discussion by E. F. Tholen, M. D., Los Angeles, and Emile Holman, M. D., San Francisco.

2. *The Treatment of Bone Tumors*—Edwin I. Bartlett, M. D., 1020 Medico-Dental Building, 490 Post Street, San Francisco.

Reviews the types of treatment employed up to the present time. Cites the advances made in the scientific study of bone tumors during the past few years. Points out the application

of this new gained knowledge in the selection of the therapeutic agent. Discusses the prognosis. (Lantern slides of selected cases and discussion of treatment employed.)

Discussion opened by A. U. Desjardins, M. D., and Charles Connors, M. D.

3. *Factors of Healing in the Repair of Intrapulmonary Abscesses and Persistent Bronchial Fistulae*—Emile Holman, M. D., Stanford University Hospital, San Francisco.

A discussion of the physiological processes underlying the repair of intrapulmonary abscesses, and the retarding effects of bronchial fistulae upon such repair, followed by a discussion of the principles governing the surgical procedures calculated to assist in the repair of intrapulmonary abscesses and in the cure of persistent or chronic bronchial fistulae with presentation of illustrative cases.

Discussion by Harold Brunn, M. D., San Francisco, and Fred R. Fairchild, M. D., Woodland.

4. *Diagnostic Pneumothorax in Lung Abscess Cases*—Harold Brunn, M. D., 1001 Fitzhugh Building, 384 Post Street, San Francisco, and William B. Faulkner, Jr., M. D., University of California Hospital, San Francisco.

Management of patients with lung abscesses has been decidedly influenced by the use of diagnostic pneumothorax. A discussion of the technique of diagnostic pneumothorax and the interpretation of diagnostic pneumothorax x-ray plates. Report of six cases of lung abscesses wherein diagnostic pneumothorax was employed to advantage in the selection of rational therapeutic measures.

Discussion by Sidney Shipman, M. D., San Francisco, and Frank S. Dolley, M. D., Los Angeles.

5. *Spastic Contraction Ring as a Cause of Postoperative Intestinal Obstruction*—Hubbard S. Hoyt, M. D., Monterey.

Report of a case in which the abdomen was reopened forty-eight hours after a gastro-enterostomy had been performed, because of symptoms of obstruction. Spastic contraction ring found in the jejunum at the distal end of the anastomosis, the intestine being contracted to a small white ring approximately three-eighths of an inch wide. Summary of cases reported in the literature. Discussion of possible causes. Necessity of reopening abdomen without the use of spasm-relaxing anesthetics or drugs if this condition is to be detected.

Discussion by J. Homer Woolsey, M. D., San Francisco, and Rexwald Brown, M. D., Santa Barbara.

Second Meeting—Garden Room

Union Meeting of Surgery and Pathology Sections Tuesday, April 29, 9 to 11:30 a. m.

Program printed under second meeting of Pathology and Bacteriology Section. See page 280.

Third Meeting—Garden Room

Thursday, May 1, 9 to 11:30 a. m.

1. *Tubed Pedicle Graft in Reconstructive Surgery*—George Warren Pierce, M. D., 720 Medicodental Building, 490 Post Street, San Francisco.

Advantages of tubed pedicle graft and problems of reconstruction successfully solved with its use. Technique of making pedicle and man-

agement of cases through various stages of transplantation. Report of cases showing original defects and successive stages of reconstruction, of nose, ear, and fingers, and also application of the pedicle to other parts of the body. Motion picture.

2. *Enemata From an Anatomical and Physiological Standpoint*—Silas A. Lewis, M. D., 1023 Taft Building, 1680 North Vine Street, Hollywood.

Motion picture of the anatomy of colonic tract. X-ray films used to illustrate filling of the normal colon with a barium enema. Comparison with films of chronic enema takers. Demonstration made of the amount of enema fluid retained after defecation and where and how the unexpelled portion is pocketed and retained. The paper discusses dangers of dilatation of the colonic tract by enemizing surgical cases and suggests a method of restoring normal bowel function, postoperative.

Discussion by William H. Daniel, M. D., Los Angeles, and Charles S. James, M. D., Los Angeles.

3. *Evidence of Nonabsorbability of Glucose Per Rectum*—Bernard Smith, M. D., 602 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

Review of experimental work. Glucose solutions of different concentrations introduced into the colon and the effects noted on peripheral blood sugar and on respiratory quotient. Evidence that glucose introduced in five per cent solution is not absorbed from the colon. Occasional evidence in clinical observations of loss of glucose in the colon from bacterial action. Possible dangers in clinical use of the glucose per rectum method. Increase in fluid content in colon after hypertonic glucose solutions are given by rectal drip method.

Discussion by Rea Smith, M. D., Los Angeles, and Clarence G. Toland, M. D., Los Angeles.

4. *Method of Pylorectomy and Gastro-Enterostomy in One Operation*—Asa Collins, M. D., Room 2100, 450 Sutter Street, San Francisco.

When necessary to perform a gastro-enterostomy and pylorectomy at one operation, too much time is consumed in most methods to make it safe. Pylorectomy can be done by a technique used for the past fifteen years in a comparatively short time and with a low mortality. Statistical chart of ninety-four cases with end results. Technique of operation with illustrations. Slides of radiograms immediately and years after operation. End results. Summary.

Discussion by Rodney A. Yoell, M. D., San Francisco, and Carl L. Hoag, San Francisco.

5. *Internal Ring in Oblique Inguinal Hernia*—Albert R. Dickson, M. D., 604 California Medical Building, 1401 South Hope Street, Los Angeles.

Oblique inguinal hernia is the result of: (1) Preformed congenital sac. (2) Enlargement of the internal ring, which is an opening in the transversalis or endo-abdominal fascia. Discussion of structures involved with technique of anatomical repair of the internal ring, stressing fascial closure of this vitally important structure. Illustrated.

Discussion by William Kiskadden, M. D., Los Angeles, and A. D. Davis, M. D., San Francisco.

INDUSTRIAL MEDICINE AND SURGERY SECTION

CHARLES A. DUKES, M. D., Chairman
601 Wakefield Building
426 Seventeenth Street, Oakland
EDMUND J. MORRISSEY, M. D., Secretary
201 Medical Building
909 Hyde Street, San Francisco

First Meeting—Club Room Tuesday, April 29, 9 to 11:30 a. m.

1. Chairman's Address—*Ethics*—Charles A. Dukes, M. D., Oakland.

As applied to industrial medical practice, ethics is common sense in dealing with patient, industry, and industrial representative. Some of the difficulties in dealing with the insurance company representatives. Many of the large industries have medical departments in charge of medical representatives, conducted on ethical lines. Is there any difference in ethics? Is it not only a more complicated application of right?

2. *Lead Poisoning*—Ernest H. Falconer, M. D., 316 Fitzhugh Building, 384 Post Street, San Francisco.

Analysis of one hundred cases of lead intoxication occurring in industry, with special reference to: (1) Criteria necessary for diagnosis. (2) Length of disability. (3) Treatment.

3. *The Treatment of Acute Head Injuries*—Edmund J. Morrissey, M. D., 201 Medical Building, 909 Hyde Street, San Francisco.

In the treatment of head injuries it is of prime importance to determine the extent of the brain lesion. This is manifested by positive clinical findings and evidence of increased intracranial pressure. It is essential likewise to distinguish whether the pressure is a result of brain edema or extracerebral hemorrhage.

Discussion opened by E. B. Towne, M. D., San Francisco.

4. *Femoral Condylitis*—Merrill C. Mensor, M. D., 1038 Medico-Dental Building, 490 Post Street, San Francisco.

Reporting two cases having localized inflammatory process of the condyle of the femur, characteristic roentgenological appearances and clinical findings. The literature does not reveal any previous report of a similar syndrome. The importance of differentiating this from trauma is essential from an industrial aspect.

Discussion opened by James T. Watkins, M. D., San Francisco.

Second Meeting—Tower Room Thursday, May 1, 9 to 11:30 a. m.

1. *Fracture Dislocation of the Cervical Spine*—H. W. Spiers, M. D., 614 Westlake Professional Building, 2007 Wilshire Boulevard, Los Angeles.

An efficient method of reduction and retention. A discussion of the problems and the cardinal principles of the treatment of fractures as related to them. Case histories and x-ray films. A description of the method and a five-minute motion picture demonstration.

Discussion opened by Maynard C. Harding, M. D., San Diego.

2. *Difficult Fractures*—W. C. Adams, M. D., 802 Medical Building, 1904 Franklin Street, Oakland.

Showing difficult fractures of various bones with complications. Handling of fractures in case of complications. Methods of reduction and appliances. (Lantern slides.)

Discussion opened by E. W. Cleary, M. D., San Francisco.

3. *Bumper Fractures*—N. Austin Cary, M. D., 2939 Summit Street, Oakland.

A series of fractures in patients struck by automobile bumpers. Nature of the fracture. Method of treatment. End results in fifty-five cases.

Discussion opened by Leonard Barnard, M. D., Oakland.

NEUROPSYCHIATRY SECTION

THOMAS G. INMAN, M. D., Chairman
2000 Van Ness Avenue, San Francisco
HENRY G. MEHRTESS, M. D., Secretary
Stanford Hospital, San Francisco

First Meeting—Garden Room

Wednesday, April 30, 9 to 11:30 a. m.

1. *The Significance of Postural Tensions for Normal and Abnormal Human Behavior*—Edward J. Kempff, M. D., 44 Butterfly Lane, Santa Barbara.

Physiology of postural tensions in striped and unstriped neuromuscular segments. The proprioceptive stream and affective streams in association with the exteroceptive streams making most of the stream of mentation. Man's method of controlling the effect of environmental stimuli, particularly personal relations, upon himself. Man's method of controlling the inner streams of feeling and sensation in order to control himself in relation to his environment. Particular application of these principles to the functional neuroses and psychoses.

2. Business Meeting.

Second Meeting—Copper Cup Room

Thursday, May 1, 9 to 11:30 a. m.

1. *The Constitutional Psychopathic Inferior Personality—A Medico-Legal Problem*—Thomas J. Orbison, M. D., 616 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

The constitutional psychopathic inferior possesses inherent and implicit factors inimical to society. Graphs. Data to show unmistakable hereditary element. Stress character building in childhood and youth by disciplinary methods to form beneficent acquired characteristics. Emphasis upon duty and right of state to take cognizance of this menace since the patient is often committable.

2. *Brain Lesions with Homolateral Signs of Pyramidal Tract Involvement*—I. Leon Meyers, M. D., 1417 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

Lesions of the cerebellum may give rise to spastic reflexes and a Babinski sign on the side of the lesion instead of the opposite side. This condition occasionally noted in lesions of the cerebrum. The rarity of such instances, with report of cases. Stress importance of securing data other than those resulting from damage to pyramidal tracts, in determining the laterality of the lesion.

3. *A Clinical Consideration of Epilepsy—Influence of Calcium and Water Metabolism Upon Seizures*—Helen H. Detrick, M. D., 2055 California Street, San Francisco.

Lines along which control of epileptic seizures has been attempted in past. Effects of fasting, ketogenic diet, and dehydration upon mineral metabolism of body. Clinical application of principles with special relation to therapeutic effects of a balanced salt-water regimen. Effect on convulsions, personality and general health of patient.

4. *Sodium Chlorid and Water Metabolism in the Convulsive States*—Frederick Proeschner, M. D., Agnew.

This paper deals with the sodium chlorid and water metabolism in the convulsive states under rigid experimental conditions. The diagnostic significance of the sodium chlorid retention and its relation to seizures will be discussed.

OBSTETRICS AND GYNECOLOGY SECTION

KARL L. SCHAUPP, M. D., Chairman
835 Medico-Dental Building
490 Post Street, San Francisco

CLARENCE A. DE PUY, M. D., Secretary
Strad Building, 230 Grand Avenue, Oakland

First Meeting—Tower Room

Monday, April 28, 2:30 to 5:30 p. m.

1. *Gonorrhea in the Female*—Albert V. Pettit, M. D., 2000 Van Ness Avenue, San Francisco.

Incidence in western cities; handling of infectious cases. Internal and external pathology of acute and so-called chronic gonorrheal infections. Criticism of methods of treatment. Operative and nonoperative treatments.

Description and criticism of newer methods; hyperpyrexia induced by foreign protein, hydrotherapy and diathermy.

Problem facing gynecologists in treatment of gonorrhea, from economic and social aspects. Case reports.

2. *Nonspecific Vaginal Infection*—Donald A. Dallas, M. D., 530 Medico-Dental Building, 490 Post Street, San Francisco.

Description of the various types of non-gonorrheal cervicitis and vaginitis as seen and studied in the Stanford University Women's Clinic, with appropriate methods of treatment for each form.

3. *Pelvic Endometriosis*—Alice Maxwell, M. D., University of California Hospital, Fourth and Parnassus Avenues, San Francisco.

The importance of aberrant Mullerian tissue is apparent from the numerous reports appearing on pelvic endometriosis. The discussion will be concerned with theories of its etiology. The variation and severity of the symptoms depend upon the invasiveness of the aberrant endometrium and the resulting peritonitis and fixation of the involved structures. A diagnosis of the lesions and treatment of the condition will be presented.

Second Meeting—Children's Playroom A

Wednesday, April 30, 9 to 11:30 a. m.

1. Chairman's Address—*Resuscitation of the Newborn*—Karl L. Schaupp, M. D., San Francisco.

2. *Conduct of Normal Labor*—John Vruwink, M. D., 709 Medical Office Building, 1136 West Sixth Street, Los Angeles.

Definition of normal labor. Objective in the management of normal labor. Role of analgesia and anesthesia. Value and detriment of certain medical and surgical aids. Review of cases without analgesia, and with Gwathmey or twilight sleep. Suggestions in the management of the third stage and the immediate care of the nursing child.

3. *Conduct of Occiput Posterior Position*—T. Floyd Bell, M. D., 400 Twenty-Ninth Street, Oakland.

Study based on histories of occiput posterior position at the University of California Hospital. Internal rotation is considered in detail in relation to poor pains, parity, poor flexion, and in spontaneous deliveries. Interference in delivery with forceps and other means has been studied. Maternal and fetal deaths tabulated. Treatment is considered as to means of rotation, the use of anesthesia in long labors, and the type of delivery.

4. *Birth Injuries*—Louis I. Breitstein, M. D., 416 Union Square Building, 350 Post Street, San Francisco.

Plea for "better obstetrics"; better instruction of undergraduates; better diagnosis; better management in contracted pelvis, and better technique in operative procedures. Danger in use of forceps and also in prolongation of expectant policy. Need for closer coöperation with pediatrician and neurosurgeon. Motion picture of birth injuries.

PATHOLOGY AND BACTERIOLOGY SECTION*

W. T. CUMMINS, M. D., Chairman
Southern Pacific Hospital, San Francisco

GEORGE D. MANER, M. D., Secretary
Wilshire Medical Building
1930 Wilshire Boulevard, Los Angeles

First Meeting—Club Room

Monday, April 28, 2:30 to 5:30 p. m.

1. Chairman's Address—W. T. Cummins, M. D., San Francisco.

2. *The Clinical Significance of Erythrocytic Measurements—A New, Simple Method of Determining*—Garnett Cheney, M. D., 703 Shreve Building, 210 Post Street, San Francisco.

History of red cell measurements. Laborious methods employed. Simplicity and accuracy of Eve's "halometer" for measuring average, mean diameters noted. Normal average sizes. Disorders in which measurements are of great, of considerable, and of doubtful value. The facility of Eve's method necessitates a wider clinical knowledge of subject. (Illustrated.)

3. *Some of the Factors Governing Tumor Susceptibility*—C. L. Connor, M. D., University of California Medical School, San Francisco. (By invitation.)

This is a summary of work on hereditary and racial susceptibility and immunity as studied by others, and a résumé of personal work on the effect of sex glands, and other glands, which may in some manner regulate the growth of tumors. (Illustrated.)

4. *The Flagellate, Trichomonas Hominis; Pathogenicity in the Rabbit, with Report of a Human Fatality*—Franklin R. Nuzum, M. D., Albert H. Elliott, M. D., and Blanche V. Priest, A. B. (By invitation.) Cottage Hospital, Santa Barbara.

The literature is summarized regarding the geographical distribution and incidence of *Trichomonas hominis* infestation. The symptomatology, pathogenicity, and results of animal experimentation are discussed. A series of inoculation experiments in rabbits are reported in detail. An instance of infestation in man, with complete necropsy examination is given.

Luncheon Notices

Luncheon on Tuesday in Copper Cup Room, to which guests, officers of the California Medical Association, and members of the Section on Surgery are invited.

Members of the Section on Pathology are requested to attend the luncheon on Wednesday in Copper Cup Room, at which Dr. Z. E. Bolin will present "Pathology and Legal Medicine."

Scientific Exhibit

A scientific exhibit of gross and microscopic specimens, illustrating the Mycoses, will be demonstrated in the corridor adjacent to the Club Room, together with roentgenologic pictures and charts, and other gross specimens illustrating various interesting phases of pathology. Exhibit will be personally demonstrated.

5. *Case Reports of Mycotic Diseases* (Illustrated):
 Coccidioidal Meningitis—A. H. Zeiler, M. D., Los Angeles.
 Blastomycosis—V. L. Andrews, M. D., Hollywood.
 Actinomycosis—H. A. Thompson, M. D., San Diego, and S. P. Strange, M. D., San Francisco.
 Sporotrichosis and Streptothricosis—H. S. Sumerlin, M. D., San Diego.
 Aspergillosis—Newton Evans, M. D., South Pasadena.
 Torular Meningitis—B. Frank Sturdivant, M. D., Pasadena.
 Unusual Fungous Septicemia—O. I. Cutler, M. D., Loma Linda.
 Histoplasmosis—J. F. Kessel, Ph. D., and Ralph Crumrine, M. D., Los Angeles. (By invitation.)

Second Meeting—Garden Room
Union Meeting with the Surgery Section
Tuesday, April 29, 9 to 11:30 a. m.

1. *The Deep Mycoses in Their Surgical Aspects—Role of Laboratory Diagnosis*—Fred D. Weidman, M. D., University of Pennsylvania, Philadelphia. (By invitation.)
2. *Symposium on Coccidioidal Granuloma:*
 Internal Medicine—Herbert C. Moffitt, M. D., San Francisco.
 Surgery—Emmet Rixford, M. D., San Francisco.
 Pathology and Bacteriology—William Ophüls, M. D., San Francisco.
 Dermatology—Douglass W. Montgomery, M. D., San Francisco.
 Roentgenology (Illustrated)—William B. Bowman, M. D., Los Angeles.
 Discussion by Howard Morrow, M. D., San Francisco, and Karl F. Meyer, Ph. D., San Francisco.

Third Meeting—Club Room
Wednesday, April 30, 9 to 11:30 a. m.

1. *The Experimental Production of Arteriosclerosis*—Richard D. Evans, M. D., Cottage Hospital, Santa Barbara.
 Arteriosclerosis is one of the oldest of pathological conditions and is the most important change in the degenerative diseases which are becoming increasingly prevalent. The types of sclerosis are described and the experimental work done on their etiology is summarized. Histological preparations will be demonstrated. (Illustrated.)
2. *Tularemia in Cattle and Sheep*—J. C. Geiger, M. D., Hooper Foundation for Medical Research, San Francisco.
 Tularemia is primarily a disease of wild rabbits. Man becomes infected secondarily, the mode of transmission being from rodents through the bite of an infected fly, tick, or perhaps mosquito, or by contamination of cutaneous or conjunctival surfaces. The geographic and animal distribution of the disease must be very wide. Tularemic investigations in cattle and sheep, and their possible relationship to human beings, are fully discussed.
3. *Histologic Diagnosis of Tumors of the Glioma Group*—Cyril B. Courville, M. D., Los Angeles County General Hospital, 1100 Mission Road, Los Angeles, and L. J. Adelstein, M. D., Los Angeles. (By invitation.)
 The histologic diagnosis of gliomas is presented from the standpoint of the general pathologist, with the use primarily of routine

staining methods. The interpretation of the histologic picture, thus presented, is facilitated by the use of specific metallic methods. Pathologists, and others interested in intracranial pathology, should acquaint themselves with a few, definite, characteristic histologic aspects of the common gliomas. (Illustrated.)

4. *The Colloidal Benzoin Test of Spinal Fluid and Its Clinical Value*—W. R. Dodson, M. D., Los Angeles County General Hospital, 1100 Mission Road, Los Angeles. (By invitation.)

In which the constancy of the benzoin reaction is studied in purulent meningitis, syphilis of the central nervous system and meninges, tuberculous meningitis, poliomyelitis, encephalitis and a miscellaneous group, comprising one thousand cases verified by clinical and laboratory findings and in part by autopsy.

PEDIATRICS SECTION

Guy L. Bliss, M. D., Chairman
 1723 East First Street, Long Beach
 Donald K. Woods, M. D., Secretary
 Fifth and Laurel Streets, San Diego

First Meeting—Copper Cup Room
Monday, April 28, 2:30 to 5:30 p. m.

1. Chairman's Address—*Problem Parents*—Guy L. Bliss, M. D., Long Beach.

The new development of applied psychology is of great assistance to modern pediatrics. The education of parents by classes in the public schools and also by mental hygiene societies is of great assistance. Foster homes for problem children while the parents are being educated are of great assistance.

2. *Pneumonia at the Los Angeles General Hospital—Review and Discussion of Cases During the Past Few Years*—E. E. Moody, M. D., 722 Westlake Professional Building, 2007 Wilshire Boulevard, Los Angeles.

New methods of treatment or new scientific data are not the scope of this paper. Pneumonia service in children in Los Angeles General Hospital is perhaps the largest in the state. The Mexican population furnishes a large part of the cases. Pneumonia classified. The pneumonia of last year showed an unusual incidence of influenza. Low death rate of our service. Open-air treatment for lobar cases.

Discussion by William Happ, M. D., Los Angeles, and S. J. McClendon, M. D., San Diego.

3. *The Duration of Breast Feeding in One Thousand Cases of American Well Babies*—E. J. Lamb, M. D., 1515 State Street, Santa Barbara.

Review of literature in comparison with similar studies. Synopsis: Character of labor, birth weight, etc. Duration of breast feeding estimated in per cent for months. Causes for weaning baby from breast. Artificial feedings substituted for breast milk.

Discussion opened by J. B. Manning, M. D., Santa Barbara.

4. *Blood Transfusions in Children*—Phillip Rothman, M. D., 925 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.

The present status of blood transfusions in pediatrics is discussed. The merits of the procedure in the treatment of anemias, sepsis, pneumonia, and malnutrition are reviewed and illustrated with case reports. The causes of reactions, technique of administering blood, and essentials for proper matching are emphasized.

Discussion by E. P. Cook, M. D., San Jose, and W. W. Belford, M. D., San Diego.

5. *Hilum Tuberculosis in Children*—Joseph C. Savage, M. D., Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

Hilum tuberculosis in children frequently overlooked. Necessity for more careful checking of children's chests in suspicious cases.

The value of the x-ray. Emphasis on the need of prolonged care.

Observation and rechecking of these cases.

Discussion opened by Lloyd B. Dickey, M. D., San Francisco.

Second Meeting—Auditorium

Union Meeting of General Medicine With Pediatrics Section

Wednesday, April 30, 9 to 11:30 a. m.

1. *The Rôle Played by Infection in the Disorders in Infants and Children*—McKim Marriott, M. D., Washington University School of Medicine, St. Louis. (By invitation.)
2. *Colic in the Second Trimester of Infancy*—A. J. Scott, Jr., M. D., 900 California Medical Building, 1401 South Hope Street, Los Angeles.
Colic in the second three months of infancy is not common. Etiological factors to be considered are: indigestion; angioneurotic edema; cerebral birth injuries; congenital anomalies as Meckel's diverticulum with volvulus, intussusception; pyuria and renal colic; the neurotic child with nervous parents; inflammatory diseases of the ear; strangulated hernia.
Discussion opened by Langley Porter, M. D., San Francisco.
3. *Abdominal Allergy in Infancy*—Henry E. Stafford, M. D., 242 Moss Avenue, Oakland.
Colic with or without vomiting often can best be treated when considered as an allergic manifestation. Illustrative cases and practical points in treatment are to be discussed.
Discussion by E. S. Babcock, M. D., Sacramento, and A. H. Rowe, M. D., Oakland.
4. *Congenital Heart Disease*—Hobart Rogers, M. D., Summit Medical Building, 400 Twenty-ninth Street, Oakland.
A fifteen-minute film of sixteen millimeters size, showing different phases of congenital heart disease. Discussion of the different points brought out by the film as it is run.
Discussion opened by William J. Kerr, M. D., San Francisco.

RADIOLOGY SECTION*

IRVING S. INGBER, M. D., Chairman
321 Medico-Dental Building
490 Post Street, San Francisco

WILLIAM H. SARGENT, M. D., Secretary
Franklin Building, 1624 Franklin Street, Oakland

First Day—Copper Cup Room

Tuesday, April 29, 8:30 to 11:30 a. m.

Business Session

1. Chairman's Address.
2. *Radiation Treatment of Carcinoma of the Respiratory Tract*—Orville N. Meland, M. D., 1407 South Hope Street, Los Angeles.
Malignancy of the respiratory tract is usually of the inoperable type. The exception to the rule is intrinsic carcinoma of the larynx. Carcinoma of the bronchial tree is benefited by x-radiation, and if it is discovered early by bronchoscopic examination, implantation of radium needles or radon seeds will retard the progress of the disease. Report of cases.
Discussion opened by Edward W. Chamberlain, M. D., San Diego.

* Discussion must be limited to five minutes and general discussion on case reports.

3. *Multiple Myeloma With a Case Report*—Lloyd Bryan, M. D., and Joseph Levitin, M. D., Room 1124, 450 Sutter Street, San Francisco.

Lantern slide demonstration, showing effects of therapy on the tumor.

4. *The Effect of X-Ray on Tissue*—Henry J. Ullmann, M. D., 1520 Chapala Street, Santa Barbara.

Methods for determining the time after radiation when the greatest effect occurs, at least for a certain definite portion of the effect.

Discussion opened by A. U. Desjardins, M. D., Mayo Clinic, Rochester, Minnesota.

5. *Therapeutic Irradiation of the Ovaries*—Alfred C. Siefert, M. D., Merritt Hospital, Oakland.

The ovary, exclusive of reproductive function, occupies a dominant position in female organism in youth and maturity, in health and disease. Its periodic activity affects remote organs, normal or pathological.

Therapeutic irradiation and modification of ablation of function discussed; radiation treatment of benign gynecological diseases, and of extragenital affections of the female organism.

Discussion opened by William H. Sargent, M. D., Oakland.

6. *Radiosensitiveness of Lymphocytes and Its Significance in Radiotherapy*—A. U. Desjardins, M. D., Mayo Clinic, Rochester, Minnesota. (By invitation.)

Second Day—Copper Cup Room

Wednesday, April 30, 8:30 to 11:30 a. m.

1. *X-Ray Diagnosis of Lung Pathology*—Frank R. Ruff, M. D., Burnett Sanitarium, Fresno.
This article covers many lung conditions, with lantern slides to show the different diseases such as syphilis of the lung, Hodgkin's disease, abscesses, dermoid cysts, malignancies, unresolved pneumonia, pneumothoraces, empyema, etc., with a short discussion of each as to the differential diagnosis.
Discussion by Rollo G. Karshner, M. D., Los Angeles.
2. *A Case Simulating Thoracic Stomach*—James B. Bullitt, M. D., 303 Medico-Dental Building, San Jose.
3. *Diverticula of the Stomach—With the Report of Three Cases*—M. J. Geyman, M. D., 1520 Chapala Street, Santa Barbara.
4. *Chylo-Thorax*—R. G. Van Nuys, M. D., Franklin Building, 1624 Franklin Street, Oakland.
Report of one case with brief résumé of literature. These cases are rare and interesting. This case presents some unusual features.
5. *Ewing's Tumor*—Kenneth S. Davis, M. D., St. Vincent's Hospital, Los Angeles.
6. *High Milliamperage Technique*—John D. Lawson, M. D., Woodland Clinic, Woodland.
Report of five years' experimentations with a technique using milliamperage varying from 100 to 250. Comparison of efficiency and economy of this contrasted with lower milliamperage method.
7. *The Value of the X-Ray in the Diagnosis of Tracheobronchial and Pulmonary Tuberculosis*—M. L. Pindell, M. D., 678 South Ferris Avenue, Los Angeles.

Ten-year contract program. Physical findings versus x-ray findings. Conclusions.

UROLOGY SECTION

CHARLES P. MATHÉ, M. D., Chairman
Room 1831, 450 Sutter Street, San Francisco

HARRY W. MARTIN, M. D., Secretary
1010 Quinby Building
650 South Grand Ave., Los Angeles

First Meeting—Tower Room

Tuesday, April 29, 9 to 11:30 a. m.

1. Chairman's Address—Charles P. Mathé, M. D., San Francisco.
2. *End Results in Perineal Prostatectomy by the Closed Method*—A. Elmer Belt, M. D., 722 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.
This paper deals with the results in a group of perineal prostatectomies done by the closed method. The technique is resumed with modification used by the author. The comparison with the classical or open method bears upon the length of hospitalization, of wound healing, functional results together with changes in the postoperative care.
Discussion opened by George G. Reinle, M. D., Oakland.
3. *Radical Prostate-Seminal Vesiculectomy for Benign Hyperplasia with Infection*—Frank Hinman, M. D., 603 Fitzhugh Building, 384 Post Street, San Francisco.
Reason for operation. Technical steps of the first operation, illustrated with lantern slides. Report of cases; pathological findings; results, urination, sexual power.
Discussion opened by Leo Buerger, M. D., Los Angeles.
4. *The Obstructing Prostate and Its Surgical Treatment*—Nathan Hale, M. D., 418 Medico-Dental Building, 1127 Eleventh Street, Sacramento.
The author's results based on six years' records in one hospital. An attempt to record the end results of recognized operative procedures under ordinary conditions and usual hospital care.
Discussion opened by Wilbur Parker, M. D., Los Angeles.
5. *Clinical Manifestations of Bladder Tumors*—Louis Clive Jacobs, M. D., Room 1410, 450 Sutter Street, San Francisco, and Abelson Epsteen, M. D., 870 Market Street, San Francisco.
A study of bladder tumors based upon a review of one hundred cases at Mount Zion Hospital, San Francisco. Special emphasis is placed upon frequency of occurrence; methods of diagnosis; necessity of complete cystoscopic investigation; value of roentgenology, including cystography; and biopsy findings. An evaluation of surgical diathermy is detailed.
Discussion opened by George D. Stilson, M. D., Long Beach.
6. *The Treatment of Acute Prostatitis*—Burnett Wright, M. D., 1137 Roosevelt Building, 727 West Seventh Street, Los Angeles.
A convenient and efficient method is described. An apparatus that permits of continuous rectal irrigation with solutions of a constant, controllable temperature for long periods of time, will be illustrated by lantern slides.
Discussion opened by Edward W. Beach, M. D., Sacramento.

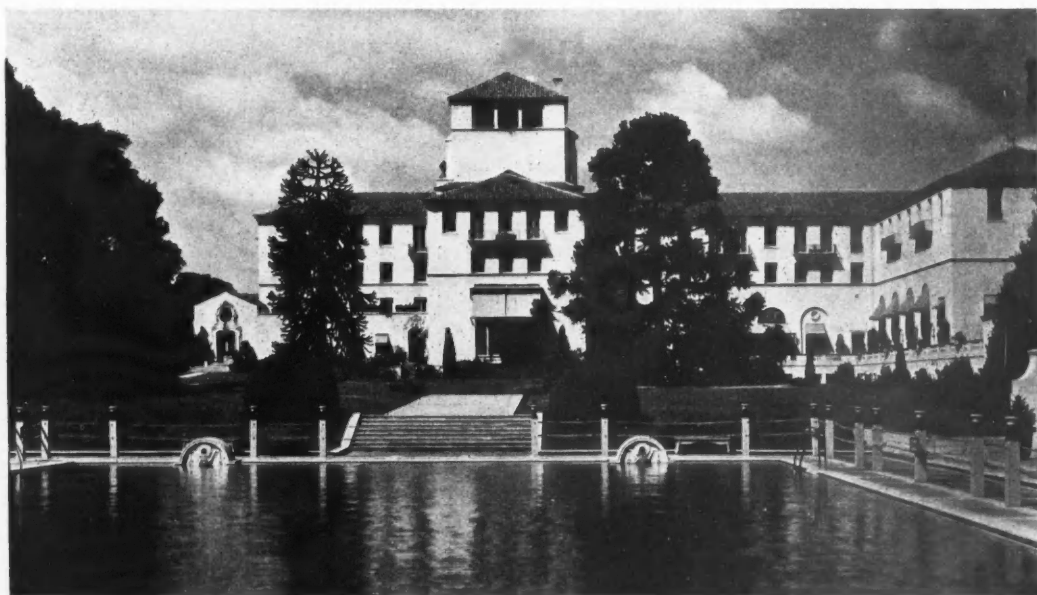
7. *Demonstration of a New Cystoscopic Instrument*—Herbert A. Rosenkranz, M. D., 1024 Story Building, 610 South Broadway, Los Angeles.

Demonstration of a device to prevent dragging out or displacement of renal catheters during withdrawal of the cystoscopic sheath.

Second Meeting—Tower Room

Wednesday, April 30, 9 to 11:30 a. m.

1. Business Meeting.
2. *Nephroptosis—Diagnosis and Treatment: Review of Case Histories and X-Rays*—J. J. Crane, M. D., 514 Westlake Professional Building, 2007 Wilshire Boulevard, Los Angeles.
Diagnosis is based on: (a) Symptoms which are quite uniform for all cases. (b) Physical examination. (c) Kidney studies, pyelograms taken in supine and upright positions to show degree of ptosis, dilatation of calices and pelvis as well as kinking of ureters. Reproduction of pain by pyelogram, etc.
Treatment: (a) Nonsurgical. (b) Surgical: Methods.
Discussion opened by William E. Stevens, M. D., San Francisco.
3. *Ureteral Pain Persisting After Nephrectomy, Relieved by Ureterectomy*—Lewis Michelson, M. D., 434 Medico-Dental Building, 490 Post Street, San Francisco.
Erroneous idea that pain cannot be present in ureter after removal of kidney. Discussion as to cause of pain. Pathological findings and report of cases.
Discussion opened by B. H. Hager, M. D., Los Angeles.
4. *Pathology of Kidney and Ureter in Calculus Disease*—Leo Buerger, M. D., Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.
Salient features of pathological alterations induced by infection and calculus disease, analyzed with a view to improve methods for conservation of reno-ureteral tract.
5. *Management of Stag-Horn Stones in Unilateral Kidneys*—James R. Dillon, M. D., 301 Medico-Dental Building, 490 Post Street, San Francisco.
Introduction—Discussion of operative technique which will cause a minimum of destruction of kidney tissue and of function. Presentation of cases. Summary. (Lantern slides.)
Discussion of Doctor Buerger's and Doctor Dillon's papers by J. C. Negley, M. D., Los Angeles, and Paul A. Ferrier, Pasadena.
6. *Horseshoe Kidney—With Report of a Case in Which Partial Resection was Performed*—A. J. Scholl, M. D., 721 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.
A short review of the anatomy of horseshoe kidneys is given, together with a discussion of the surgical approach in the treatment of various pathological conditions. A case is reported of resection of one-half of a horseshoe kidney.
Discussion by Edwin F. Chamberlain, M. D., San Diego.
7. *Ureteral Reflux in the Human Being*—H. A. R. Kreutzmann, M. D., 2000 Van Ness Avenue, San Francisco.
A summary of the various factors which cause ureteral reflux, with a discussion of its occurrence in normal people.
Discussion opened by Franklin Farman, M. D., Los Angeles.



HOTEL DEL MONTE—HEADQUARTERS

ENTERTAINMENT PROGRAM

GOLF

GOLF COMMITTEE

Elbridge J. Best, Chairman.....	San Francisco
John Crossan	Los Angeles
Orrin Cook	Sacramento
Harry Alderson	San Francisco
Clarence G. Toland.....	Los Angeles

For those who enjoy golf, the Monterey Peninsula offers abundant opportunity for recreation. It will be possible to play each day while attending the meeting.

On Sunday, April 27, there will be no medical tournament, but it will be possible, for those who wish, to play one of several courses.

Monday, the 28th, in the morning, there will be a special tournament on the Del Monte links.

Tuesday afternoon, the regular tournament will be held to decide the championship of the Association. There will also be a number of attractive prizes so

arranged as to give every player an equal chance to win.

Wednesday afternoon will be devoted to a tournament on the Pebble Beach links and some novel features will be introduced.

All competition will be based upon medal play, according to the U. S. G. A. rules. Failure to putt out on any hole disqualifies.

In view of the fact that the North and South Medical Golf Associations have decided not to hold their annual tournament this year because of the possibility that such a tournament might detract from the medical meeting, the number of contestants for the above tournaments will probably be large. It is therefore strongly urged that all players watch for detailed announcements and be on the first tee early in order that every one may complete his round in good time.

PROGRAM FOR WOMAN'S AUXILIARY

STATE AUXILIARY OFFICERS

Mrs. H. S. Rogers, Petaluma.....	President
Mrs. W. H. Geistweit, San Diego.....	First Vice-President
Mrs. John Hunt Shephard, San Jose.....	Second Vice-President
Mrs. R. A. Cushman, Santa Ana.....	Secretary-Treasurer

Business Meetings

On Tuesday, April 29, at 10 a. m. a meeting of the Woman's Auxiliary of the California Medical Association will be held in the Lounge adjoining the main dining room. All members of county and state auxiliaries and all visiting women eligible to membership are invited to attend.

On Wednesday, April 30, at 10 a. m., a second meeting of the Woman's Auxiliary of the California Medical Association will be held in the Lounge. Dr. Morton R. Gibbons, president of the California Medical Association, and Dr. William Duffield, councilor of Los Angeles, will address this meeting. All members of the auxiliary and all visiting women, eligible to membership, are earnestly requested to attend.

Entertainment

Seventeen-Mile Drive

Tuesday afternoon, April 29, has been devoted to the enjoyment of the famous Seventeen-Mile Drive. All women guests are invited. Will those who have extra space in their cars furnish this information to

the registration desk that all available space may be used. The Chamber of Commerce and Arrangements Committee will endeavor to provide transportation for those who cannot be so accommodated.

Tea to President's Wife

In honor of Mrs. Morton R. Gibbons, a tea will be held at the Monterey Peninsula Country Club on Wednesday afternoon at four o'clock. Those who desire to attend will please secure tickets at the registration desk. Early reservation for all events is earnestly requested. Members who have available space in their cars should furnish this information at the time of purchasing tickets.

Call to Breakfast Conferences

The board of directors of the Woman's Auxiliary, consisting of the president, first and second vice-presidents, secretary-treasurer of the State Auxiliary, and the presidents and secretaries of each County Auxiliary will meet at nine o'clock breakfasts for informal conferences on Monday the 28, Tuesday the 29th, and Wednesday the 30th.

Luncheons

A luncheon table for members will be set apart in the main dining room, to which all members of the auxiliary are invited on Wednesday at one o'clock.

STATE MEDICAL ASSOCIATIONS

CALIFORNIA MEDICAL ASSOCIATION

MORTON R. GIBBONS.....President
LYELL C. KINNEY.....President-Elect
EMMA W. POPE.....Secretary

OFFICIAL NOTICE

SOUTHERN PACIFIC TRAIN SCHEDULE TO DEL MONTE

Leave San Francisco..... 8:00 a. m. 3:00 p. m. 6:15 p. m.
Arrive at Del Monte.....11:46 a. m. 6:20 p. m. 9:56 p. m.

Leave Los Angeles..... 8:00 a. m. 8:15 p. m.
Arrive at Del Monte..... 8:20 p. m. 8:07 a. m.

Round trip rates to Del Monte:
From San Francisco.....\$ 6.00
From Los Angeles..... 18.50

Driving from South: Go to Salinas, turn left and drive straight to Del Monte.

Driving from North: Go to Salinas and on through town direct to Del Monte. Do not make Los Angeles turn.

For hotel rates and information, see page 126 of the February issue of California and Western Medicine.

COUNCIL MINUTES

Minutes of the One Hundred and Eighty-Sixth Meeting of the Council of the California Medical Association

*Approved at the One Hundred and Eighty-Seventh
Meeting of the Council of the California Medical
Association, January 18, 1930*

Held at the home of Dr. George H. Kress, Uplifters' Ranch, Santa Monica Canyon, Los Angeles, Saturday, September 28, 1929, at 11 a. m.

Present.—Doctors Gibbons, Kinney, Pallette, Arnold, Duffield, Moseley, DeLappe, Phillips, Coffey, Hamlin, Harris, Rogers, Hunter, Cushman, Kress,

Catton, Kelly, Peers, Pope, and General Counsel Peart.

Absent.—None.

1. Call to Order.—The meeting was called to order by the chairman, Oliver D. Hamlin.

2. Minutes of the Council.—The chairman stated that the minutes of the 181st, 182nd, 183rd, 184th and 185th meetings of the Council had been mailed to all members of the Council, and if there were no objections, he would entertain a motion for their approval without further reading.

Action by the Council.—On motion of Duffield, seconded by Kelly, and unanimously carried, the following resolution was adopted:

Resolved, That the minutes of the 181st, 182nd, 183rd, 184th and 185th meetings of the Council as mailed to all members, be approved.

Doctor Kress then stated that he believed it was advisable at each annual session to present the minutes of the previous day for approval in order that Council minutes might receive earlier publication in the journal.

Action by the Council.—On motion of Kress, duly seconded and unanimously carried, the following resolution was adopted:

Resolved, That at annual meetings, the minutes of the previous day's meeting be taken up for approval at the next meeting of the Council.

3. Minutes of the Executive Committee.—The chairman stated that the minutes of the 113th and 114th meetings of the Executive Committee had been mailed to all members of the Council and if there were no objections, he would entertain a motion for their approval without further reading.

Doctor Kress asked that minute 4 of the 114th meeting on "Standing Committees" be changed to read "Letter from Doctor Kress suggesting that by mutual agreement councilors who are serving on standing committees and who would be elected for

three-year terms, resign at the organization meeting of the Council each year." This would provide for a reshifting of councilors to different standing committees to fit in with the wishes of different councilors in case they had an especial interest in the work of some one committee.

Doctor Kress asked that a change be made in the introductory sentence to minute 28 on "Wine Tonics"; but waived his request for change, after discussion.

Doctor Kress stated that the motion of furnishing bound volumes of the journal, minute 32, was made by Doctor Pallette, duly seconded. Such change in the minutes was authorized.



Colton Hall

Action by the Council.—On motion of Kelly, seconded by Kinney, and unanimously carried, the following resolution was adopted:

Resolved, That the minutes of the 113th and 114th meetings of the Executive Committee, as amended, be approved.

4. Offices of the Association.—The secretary-treasurer reported that pursuant to action of the Council, the offices of the Association had been removed to rooms 2004 to 2007, Four-Fifty Sutter Street, on the 25th of September.

Action by the Council.—On motion duly made and seconded and unanimously carried, the following resolution was adopted:

Resolved, That the offices of this Association be and the same are hereby fixed and located at rooms 2004 to 2007, Four-Fifty Sutter Street, San Francisco, notice thereof having been sent by mail to all officers of the Association, section officers, all county secretaries; and to all members by publication in the official notices in the October issue of the journal.

5. Committee on History of the California Medical Association.—Letter from Dr. Emmet Rixford asking if any action had been taken at the last annual meeting in re the Committee on the History of the California Medical Association was presented. It was stated that the formation of the standing committees provided for in the new constitution had automatically dissolved all special committees existing under the previous constitution. Doctor Rixford's letter stated that he had still on hand a check for \$100 which had been allowed his committee for clerical help and postage. It was decided that the \$100 should be returned to the secretary-treasurer for deposit in the general funds of the Association and that Doctor Rixford be asked to submit a statement of any expenses incurred. Doctor Kress stated that the work of the Historical Committee would now be taken over by the Committee on History and Obituaries.

6. Committee on Medical Defense.—Letter from Doctor Trowbridge expressing regret at his inability to serve on the Committee on Medical Defense was read.

Action by the Council.—On motion of Harris, seconded by Kelly, and unanimously carried, it was

Resolved, That the resignation of Dr. Dwight Trowbridge be accepted with regret, and that Dr. James L. Maupin, Sr., be appointed a member of the Committee on Medical Defense, to fill the unexpired term of Doctor Trowbridge.

Letter from Dr. Mott H. Arnold submitting his resignation as a member of the Committee on Medical Defense was read.

After discussion, Doctor Arnold decided to withdraw his resignation and remain on the committee. The membership of the committee was then stated to be Doctors Mott Arnold, George Reinle, J. L. Maupin.

7. Standing Committees.—Doctor Kress stated that it had been decided to place a councilor on each standing committee so that he could act as a liaison officer between the Council and the committee and that it might be well if all councilors serving on standing committees resigned at the reorganization meeting of the Council each year since such resignations would provide for any adjustment of membership on the committee which might be advisable.

Action by the Council.—On motion of Kress, seconded by Gibbons, and unanimously carried, it was

Resolved, That it be the sense of the Council that at the reorganization meeting of the Council each year, the councilors who are on standing committees shall submit their resignations on such committees and the Council shall proceed to readjust the councilor representation on the standing committees as would seem to the best interests of the Association, by mutual consent.

Doctor Rogers stated that it might be desirable for the Council to name the chairmen of standing committees since at present the councilor was instructed to call the committee together for organization and election of a chairman and since his vote decided the

chairmanship, it was liable to cause hard feelings. No action taken.

Action by the Council.—On motion of Kress, seconded by Duffield, and unanimously carried, the following resolution was adopted:

Resolved, By the Council of the California Medical Association, that a form letter such as is appended to this resolution shall be sent to each member of every standing committee within two weeks after the annual session of the Association; and be it further

Resolved, That if the members of a standing committee do not of themselves organize and notify the central office of the Association of such organization within a period of two months after the annual session of the Association, then the Executive Committee shall have the power to nominate a chairman and secretary of such standing committee. The secretary of the Association shall send such nominations to each member of each such committee with a reply blank asking each such member to register his vote, so that each such committee shall be properly organized, and be able to take up its work for the Association.

Form Letter

To the Members of the Standing Committee on.....
Names (3)

Dear Doctors:

The Constitution and By-Laws of the California Medical Association (see Chapter V, Section V) provides that each standing committee shall elect its own chairman and secretary.

It is important that this be done if the committee is to properly function.

Recognizing that such organization may sometimes be overlooked by members of the standing committees, the enclosed resolution bearing on the subject has been passed by the Council.

In accordance therewith the members of this committee are herewith notified that the Executive Committee of the California Medical Association has nominated as chairman of your committee, Doctor, and as secretary, Doctor

Unless a majority vote is cast against such nominations these officers will be requested to act in such capacity until at some subsequent meeting of your standing committee the members ratify the above or make other selections for chairmanship and secretaryship.

Trusting this will be acceptable, we are

THE EXECUTIVE COMMITTEE.

By
Secretary-Treasurer.

8. Radio Broadcasting.—The secretary read a letter from the San Francisco County Society enclosing letter from a doctor relative to broadcasting the American Medical Association health material over KFRC. It was stated that the Air Health Institute of Oakland broadcasting over KGO was desirous of having the Association approve its broadcasting. Doctor Cushman stated that broadcasting was being carried on in Orange County under the auspices of the county society. General discussion was then entered into and it was stated that if the Association approved the broadcasting of one concern it would immediately be swamped with requests for approval from all sources and the amount of work involved would be so great that it would be much more satisfactory to prepare and broadcast our own programs. If this were done, the Association could answer all requests for approval with the statement that we did our own broadcasting and therefore did not approve any other broadcasting programs.

Doctor Kelly stated that he had investigated the matter of broadcasting and had obtained the following figures:

Before 6 p. m., \$50 for fifteen minutes hookup of KFRC, San Francisco, and KHJ, Los Angeles.

Before 6 p. m., \$25 for fifteen minutes hookup of KFRC, San Francisco, only.

After 6 p. m., \$40 for fifteen minutes hookup of KFRC, San Francisco, only. Los Angeles, KHJ, will not allow lectures of any kind after 6 p. m.

It was stated that fifteen minutes would be ample time to present a paper on a subject of interest to the public. These papers could be prepared by an authority on the subject to be presented, and read by anyone having a good knowledge of medical terms and a satisfactory voice for delivery before the microphone. Doctor Kelly stated that he had not investigated whether or not there would be further expense involved in delivering the programs. It was felt that it would be advisable to omit the names of the doctors who prepared the papers and merely state that the talks were prepared by a prominent member of the California Medical Association who is considered to have a special knowledge of the subject.

Action by the Council.—On motion of Kress, seconded by Kinney, and unanimously carried, the following resolution was adopted:

Resolved, That the Executive Committee be requested to investigate the matter further, with power to act; provided that it does not engage in any contract for longer than one year or at a greater expense than \$3000; with the understanding that any radio broadcasting shall be absolutely impersonal without the use of any names of individuals.

Action by the Council.—On motion of Kress, seconded by DeLappe, and unanimously carried, the following resolution was adopted:

Resolved, That the Council of the California Medical Association refer to the Executive Committee for investigation any medical broadcasting by members of the medical profession with instructions to call to the attention of such medical broadcasters defections in methods of broadcasting if it seem desirable; and make a report to the Council in due time.

Doctor Moseley stated that since we had decided to answer all requests for approval with the statement that the Association did not approve any broadcasting but its own, he did not see that any further action was necessary.

9. First Aid and Minor Medical Care (Committee on Public Health and Instruction).—Doctor Rogers stated that the Committee on Public Health and Instruction had not been organized early enough to submit a report on the question of the growing tendency of physical instructors to give first aid and minor medical care to students, but that in answer to his personal investigations he had received the reply that the men who take up physical instruction are not physicians and unless physicians can be encouraged to go into this type of work the question will undoubtedly always be present. Doctor Kress called attention to correspondence regarding the Department of Health and Physical Education. Doctor Rogers stated that he had received this correspondence and it would be referred to the chairman of the Committee on Public Health and Instruction.

10. Mexican Medical Men.—Doctor Kress stated that Mr. C. N. Thomas, who was desirous of having some of the medical men from Mexico as guests of the Association during next spring had been to visit him but that the plan was very indefinite and from conversation with other persons who knew the Mexican situation and from the results of the attempt of the American Medical Association along this line it appeared impractical. No action taken.

11. Committee on Medical Economics.—Letter from Dr. John H. Graves, chairman of the Committee on Medical Economics, stating that at present the committee was gathering information on the cost of sickness, was read.

Action by the Council.—On motion of Kelly, seconded by Gibbons, and unanimously carried, the following resolution was adopted:

Resolved, That the report of the Committee on Medical Economics be accepted.

12. Incorporation of the Association.—The secretary-treasurer reported that a second letter on incorporation had been mailed to members who had not yet cast their ballots and that only 800 votes were needed to make the necessary two-thirds vote. It was

felt that the full quota of votes would be received from this second canvass, but in the event that the ballots were slow in coming in the Executive Committee could take the matter in hand. It was suggested that the names of members who had not yet cast their ballot be sent to some of the different county societies.

Action by the Council.—On motion of Duffield, seconded by Coffey, and unanimously carried, it was

Resolved, That the Executive Committee be empowered to take such action as is necessary to expedite the acquiring of the necessary two-thirds ballot.

13. Narcotics.—Letter from the Bureau of Legal Medicine and Legislation submitting a proposed Uniform State Narcotic Act, was presented. No action taken.

Correspondence from Dr. William Cole and the Board of Medical Examiners regarding the possibility of having druggists communicate with doctors before filling prescriptions for narcotics, to eliminate the possibility of forgery of doctors' names, was read.

Action by the Council.—On motion of Kelly, seconded by DeLappe, and unanimously carried, the following resolution was adopted:

Resolved, That the correspondence be filed.

14. Woman's Auxiliary.—Correspondence from Mrs. R. A. Cushman, secretary of the Woman's Auxiliary, asking that a change be made in the rules governing the Woman's Auxiliary which would permit widows of physicians to become members, was presented. It was stated that the Executive Committee recommended such change.

Action by the Council.—On motion of Duffield, seconded by Peers, and unanimously carried, the following resolution was adopted:

Resolved, That the recommendation of the Executive Committee be approved.

Letter from Mrs. Henry S. Rogers, president of the Auxiliary, asking that some work be given the Auxiliary, was read. It was pointed out that the County Auxiliaries had to be organized through the county medical societies and in many cases a lack of interest was shown by the county societies. It was felt that the county societies should be urged to cooperate with the Auxiliary. Doctor Gibbons stated that since the formation of the Auxiliary was an obligation of the state society, it might be well to select topics such as are used by the American Medical Association and furnish them to the various Auxiliaries.

Action by the Council.—On motion duly made and seconded, and unanimously carried, the following resolution was adopted:

Resolved, That the Council authorize a subscription to the official publication of the Woman's Auxiliary of the American Medical Association for each county society; such copy to be sent to the secretary of the county medical society with instructions to forward the same letter to the secretary of the county unit of the Woman's Auxiliary.

Action by the Council.—On motion of Kress, seconded by Duffield, and unanimously carried, it was

Resolved, That the general supervision of the Woman's Auxiliary be referred to the Committee on Associated and Affiliated Societies.

Doctor Kinney suggested that the editor be asked to put a note in the editorial column regarding the matter.

15. Coöperative Diagnostic Laboratories.—Correspondence from Dr. Olin West regarding the Coöperative Diagnostic Laboratories of Los Angeles was presented. Discussion was then had of the ethics of members interested in such a laboratory. It was stated that investigations and reports had been made by committees of the Los Angeles County Medical Association. It was felt that the question of ethics involved was primarily one for the county society to solve in this case but that inasmuch as the problem involved was one that would probably be coming up in other communities, it would be well to study the case.

Action by the Council.—On motion of Catton, seconded by Gibbons, the following resolution was adopted:

Resolved, That inasmuch as this is an involved problem, the whole matter be referred to the Committee on Hospitals, Dispensaries and Clinics, for report back to the Council.

16. **Herzstein Bequest.**—The secretary-treasurer informed the Council that \$941 interest from the Herzstein Bequest Fund had been credited to the account of the Association; this fund to be used for the suppression of quackery.

Action by the Council.—On motion of Kelly, seconded by Kress, and unanimously carried, the following resolution was adopted:

Whereas, By the will of Dr. Morris Herzstein a Trust Fund in the sum of \$20,000 was established with the Wells Fargo Bank and Union Trust Company, the income of which is to be used by this Association for suppression of quackery in the practice of medicine, and

Whereas, In the opinion of the Council of the California Medical Association, one of the most effective methods of suppressing quackery is to spread and disseminate the true facts of scientific medicine, and

Whereas, The Council has at its meeting on September 28, 1929, authorized and directed the Executive Committee to establish a radio broadcasting service if it so decides; now therefore be it

Resolved, That in the event that the Executive Committee determines to establish such radio broadcasting service, that the accumulated and accruing interest from the Herzstein Bequest be used to defray to the extent thereof, the cost of such service; and be it further

Resolved, That appropriate mention be made of the contribution of this bequest to said work in each announcement.

It was suggested that it might be well in broadcasting to mention that part of the funds for broadcasting were from the bequest; or call the broadcast the California Medical Association Herzstein Hour.

17. **Retired Members.**—Letter from the San Diego County Society requesting that Dr. R. Lorini be granted retired membership in the Association, was read.

Action by the Council.—On motion of Harris, seconded by Kress, and unanimously carried, the following resolution was adopted:

Resolved, That Doctor R. Lorini of San Diego be granted retired membership in the California Medical Association on account of retirement from active practice.

Letter from the San Bernardino County Society requesting that Dr. W. H. Craig of Upland be granted retired membership in the Association, was read.

Action by the Council.—On motion of Kinney, seconded by DeLappe, and unanimously carried, the following resolution was adopted:

Resolved, That Dr. W. H. Craig of Upland, San Bernardino County, be granted retired membership in the California Medical Association on account of retirement from active practice.

It was decided that the list of doctors holding affiliate membership under the former Constitution should be submitted for approval or rejection as retired members.

Action by the Council.—On motion of Duffield, seconded by Kelly, and unanimously carried, the following resolution was adopted:

Resolved, That the question of status of affiliate members under the previous Constitution be referred to the Executive Committee with power to act.

18. **Protex Company.**—Correspondence regarding the Protex Company was presented and it was felt that the action of the Executive Committee covered the situation and no further action was necessary.

19. **Secretary of Surgical Section.**—Letter from Dr. Dexter Richards stating that he would be unable to continue as secretary of the Northern Division of the

Surgical Section on account of absence and illness was presented. Letter from Doctor Toland, chairman of the Surgical Section, stated that in accordance with Doctor Richards' suggestion, he recommended that the Council appoint Dr. Sumner Everingham to act as secretary of the Northern Division, was also presented.

Action by the Council.—On motion of Kinney, seconded by DeLappe, and unanimously carried, the following resolution was adopted:

Resolved, That Dr. Sumner Everingham be appointed Northern secretary of the Surgical Section to fill the unexpired term of Dr. Dexter Richards.

20. **Ownership of Papers.**—In accordance with the request of the Executive Committee the following form was submitted which will be signed by each applicant for space on an annual program, stating that all papers shall be the property of the Association and shall not be published elsewhere unless released in writing by the Committee on Publications:

(Note. By ruling of the Council, this blank, which incorporates provisions of Constitution and By-Laws, must be signed by all members who submit papers at an annual session.)

Place —, Date —.

I hereby agree that my paper, entitled —, which has been accepted by the section officers for presentation before — section of the — (year) annual session, is the property of the California Medical Association for exclusive publication in CALIFORNIA AND WESTERN MEDICINE, the official journal of the California Medical Association (if approved for publication therein by the editors), and that the original manuscript thereof shall be delivered to the secretary of said section immediately after it has been read, and by him transmitted promptly to the Association secretary at the office of the Association.

I understand and agree that my above article shall be published in CALIFORNIA AND WESTERN MEDICINE only unless released in writing through the Committee on Publications of the California Medical Association voluntarily or in response to a written request from me in which I state why such release is desired.

Signed

Address

A member of the — County Medical Society, a component unit of the California Medical Association.

21. **Paper of Doctor Voorsanger.**—Page proof of paper of Dr. William Voorsanger was presented to the Council, in which four pages of tables were included.

Action by the Council.—On motion of DeLappe, seconded by Harris, and unanimously carried, it was

Resolved, That the tables be not published in the journal but that a footnote be inserted stating that the tables appear in the reprint of the article.

22. **Association Letterheads.**—The secretary-treasurer presented a sample letterhead for the Association. It was the sense of the Council that the editors be given full authority to determine the type of paper to be used by the Association. Letterhead as submitted was approved by the editors.

23. **Insurance on Furniture.**—The question of renewing the policy for insurance covering furniture of the Association was discussed and on motion of Moseley, seconded by Harris, and unanimously carried, the following resolution was adopted:

Resolved, That the furniture be insured for the full insurable value.

24. **Bond for Secretary.**—It was pointed out that the new Constitution provided for the bonding of the secretary.

Action by the Council.—On motion duly made, seconded and unanimously carried, the following resolution was adopted:

Resolved, That the secretary-treasurer be placed under surety company bond in the sum of \$5000 covering the faithful performance of her duties.

25. **Right to Doctorate.**—Correspondence from Dr. A. W. Meyer regarding the right of a doctor holding an M. D. degree from an accredited school who is not

licensed in California to use the letters "M. D." after his name, was presented. Section 17 of the Medical Practice Act was discussed. Doctor Kress stated that he had prepared an editorial on the subject which would be sent to all councilors together with a copy of Doctor Meyer's correspondence, at which time they could make any comments they desired.

26. Colon Machine.—Doctor Kelly stated that the management of the Four-Fifty Sutter Building was anxious to keep any questionable tenants from the building and had asked if a tenant handling a colon flushing machine would be considered objectionable. The Council stated that it had no reaction to the question.

27. Date and Place of Spring Council Meeting.—After discussion, the date of the next meeting of the Council was set as Saturday, January 18, 1930, at the offices of the Association at San Francisco.

28. Noon Adjournment.—At this point the Council adjourned for luncheon.

29. Call to Order.—The meeting was called to order by the chairman; all members of the Council who attended the morning session being present except Dr. Mott H. Arnold.

30. Medical Practice Act and Basic Science Act.—Discussion was had on the revision of the Medical Practice Act and the advisability of initiating a basic science act. Mr. Peart pointed out the necessity of protecting the M. D. degree.

Action by the Council.—On motion duly made, seconded and unanimously carried, the following resolution was adopted:

Resolved, That the Council appoint a special council committee to study and bring in a prompt report concerning a possible revision of the California Medical Practice Act, and a basic science law; that said committee be constituted as follows: the president, the president-elect, the secretary, the editor, the chairman of the Council, the chairman of the Executive Committee, one councilor, the general counsel, three members of the Committee on Public Policy of the California Medical Association, the deans of the medical schools of the University of California, Stanford, the College of Medical Evangelists and the University of Southern California, the president and the secretary of the Board of Medical Examiners, Doctor Molony, and Doctor Gundrum of the State Board of Health. The chairman of the Council to appoint one member as chairman of the entire committee and three sub-chairmen, one from the subgroup south of the Tehachapi, one from the Bay region and one from the members not included in the two preceding groups. Each group or sub-committee to meet as soon as possible to study these matters and to formulate its recommendations, the same to be submitted at a session of the entire committee to be held on call early in January. The entire committee then to meet and formulate a report to be submitted at the spring session of the Council of the California Medical Association.

The committee was then stated to be as follows:

Bay Region—Morton R. Gibbons, group chairman; Oliver D. Hamlin, T. Henshaw Kelly, Emma W. Pope, Walter B. Coffey, Joseph Catton, Langley Porter, William Ophüls.

Los Angeles—George H. Kress, general chairman; Lyell C. Kinney, William Duffield, Percy T. Magan, group chairman; William Cutter, William Molony.

At Large—Junius Harris, group chairman; Percy Phillips, Charles Pinkham, Frederick Gundrum.

31. Medical Care.—Dr. Walter B. Coffey stated that at the last annual meeting he had been appointed by the Council to devise a plan for the care of sick individuals of limited incomes. Doctor Coffey then presented a written outline of his plan for the care of individuals having an income of \$2500 or less, together with a letter from his personal attorney (Doctor Coffey having been unable to see General Counsel Peart), stating that he had hurriedly glanced over the plan and believed it was legally feasible. Doctor Coffey stated that his plan was presented

merely as a working basis and that it might be possible to devise a better mode of procedure, but that it was his belief that some such plan was feasible and workable.

Doctor Cushman spoke of the work of the Medical Economics Committee on the study of the cost of medical care. After discussion, it was felt that Doctor Coffey's committee and the Medical Economics Committee should confer.

Action by the Council.—On motion of Kress, seconded by Kelly, and unanimously carried, the following resolution was adopted:

Resolved, That the plan of Doctor Coffey for the medical care of individuals having incomes of \$2500 or less yearly be referred to the Executive Committee for study and that the Committee on Medical Economics be called into consultation with the Executive Committee and the legal aspects of the plan worked out.

Doctor Coffey's written outline of his plan with the memorandum from his personal attorney was then ordered mimeographed and a copy thereof, with copy of the original notes on the plan by Doctor Kress was ordered sent to all councilors and to the members of the Committee on Medical Economics.

32. Resolution of Appreciation.—Action by the Council.—On motion of Moseley, seconded by Kelly, and unanimously carried, the following resolution was adopted:

Resolved, That this Council express its appreciation to Doctor and Mrs. Kress for their generous hospitality.

33. Adjournment.—There being no further business, the meeting adjourned.

OLIVER D. HAMLIN, *Chairman.*
EMMA W. POPE, *Secretary.*

COMPONENT COUNTY SOCIETIES CONTRA COSTA COUNTY

One of the most successful and the best attended regular meetings for many years was held by the Contra Costa County Medical Society at Richmond on March 11, 1930.

The meeting was opened by Dr. J. W. Bumgarner, president of the society, who introduced Dr. H. J. Templeton of Oakland. The speaker gave a complete presentation on "Ringworm Infection of the Feet," discussing incidence, secondary infection, types, and therapy. The recent work done at the University of California on this most common condition was reviewed by the speaker. The importance of ringworm of the feet in public health was stressed. The resistance of this condition to all forms of therapy and the results to be expected from each form were depicted in a clear manner. It is important to individualize the treatment of these cases. The efficiency of various antiseptics was discussed in detail.

The second paper of the evening was presented by Dr. O. H. Garrison, also of Oakland. His topic was on "Newer Concepts in the Treatment of Diabetes Mellitus." A complete, concise and practical review of diabetes was given. After a brief outline of its nature, pathology, incidence, and symptomatology, the speaker offered practical points in determining the threshold of carbohydrate tolerance. Insulin is indicated in any diabetic who cannot remain sugar-free on an adequate diet. The three common views on what constitutes an adequate diet were explained. The method of estimating the daily insulin dosage and the color reactions of the Benedict test on the urine were described.

The simplification of the two subjects, in spite of their thorough presentation by Doctors Templeton and Garrison, was greatly enjoyed by their audience. Lengthy discussions of each paper proved highly instructive.

The regular business followed the scientific program. Dr. I. O. Church of Martinez, county health physician, was unanimously voted a member of the

society. The application of Dr. Clara H. Spalding of Richmond, a former member of the society, was acknowledged and referred to the board of censors, as usual. Mrs. J. W. Bumgarner, wife of our president, sent acknowledgment of congratulations and flowers forwarded on the birth of a daughter. The death of Dr. Joseph T. Breneman of El Cerrito on March 9 was officially reported. The late doctor was the oldest practitioner in the county and a founder of the society. A floral tribute and a letter of condolence to the widow of Doctor Breneman were authorized.

A list of orders to be followed by Metropolitan nurses called to visit the sick of the company before the arrival of a physician, and to be used on their first visit only, was approved by the society after thorough discussion.

J. L. Beard and I. O. Church, both of Martinez, were appointed to arrange the program of the next meeting to be held in their city in April.

The Woman's Auxiliary held their meeting in Richmond on the same date, and were guests of the society at dinner following the meetings.

L. H. FRASER, *Secretary*.

FRESNO COUNTY

The Fresno County Medical Society held its regular meeting at the University Sequoia Club March 4, at 8 p. m. Forty members were present.

The minutes of the previous meeting were read and approved.

Dr. A. E. Anderson was appointed chairman of a special committee to investigate the question of hospitalization of patients of moderate means.

Report was made at a special meeting held March 7. After general discussion by the members of the society the matter was laid on the table.

Dr. John Hudley Scudder of Oakland read a very interesting paper on "Errors in Diagnosis of Appendicitis." He reviewed the different causes for surgical failures.

J. M. FRAWLEY, *Secretary*.

NAPA COUNTY

The regular monthly meeting of the Napa County Medical Society was held Wednesday, March 5, at 6:30 p. m. at the Napa State Hospital. Dr. C. E. Sisson, medical superintendent, acted as host and provided a most appetizing dinner, which preceded the business session. Dr. George I. Dawson, president, opened the meeting.

The minutes of the previous meeting were read and approved. Communications were read.

It was moved, seconded and carried, that the Napa County Medical Society adhere rigidly to the fee schedule of the State Compensation Insurance Fund as applied to x-ray pictures, and that the secretary should so notify certain insurance companies who are attempting to lower the rate.

The formation of a woman's auxiliary was discussed, and the wives of members will be invited to attend the next regular meeting of the society.

The business meeting having adjourned, the staff of the Napa State Hospital presented a number of typical mental cases.

Dr. C. E. Nixon, pathologist, presented several interesting postmortem specimens.

Members present were: C. H. Bulson, H. R. Colman, George I. Dawson, E. F. Donnelly, A. E. Chapple, I. E. Charlesworth, C. A. Gregory, C. A. Johnson, Lena Miller, A. K. McGrath, A. McLish, C. E. Nelson, R. S. Northrop, G. W. Ogden, J. Robertson, O. Rockwell, J. B. Rogers, C. E. Sisson, H. W. Vollmer, L. Welti, and George J. Wood.

Visitors present were: Dr. C. E. Nixon, Dr. Toller, Dr. Williams, Mr. Owen Murray, supervisor Napa State Hospital; Mrs. Harvey, superintendent Victory Hospital, Napa; Mrs. M. Davis, matron Napa State Hospital; and Miss Rose Offutt, social service worker.

C. A. JOHNSON, *Secretary*.

ORANGE COUNTY

The regular monthly meeting of the Orange County Medical Association was held at St. Ann's Inn, Santa Ana, on March 11, the date having been postponed one week due to the invitation of the society to hear Doctors Coffey and Humber's lecture at San Diego on cancer.

Forty-five members were present and a sumptuous turkey dinner was served promptly at 7 o'clock. Our guests of honor were Doctors LeRoy Crummer of Los Angeles, Lyell C. Kinney, president-elect of the California Medical Association, and Mott T. Arnold, councilor of the first district.

Between courses the following business of the society was transacted:

1. The minutes of the last three meetings were read and approved.

2. A report on the Barlow medical library and radio broadcasting was made by Dr. M. W. Hollingsworth. It was suggested that the society take out a patron membership in the Barlow library for this year only, costing \$25. It was voted on and carried. The question as to the weekly radio talks over our local broadcasting station was then discussed, the cost of \$9 for fifteen minutes weekly to be paid by the Madden Pharmacy of Santa Ana. On referring this to the membership it was carried by one vote.

3. The reading of Dr. H. F. Gramlich's application for membership was heard for the first time. The second readings of Doctors H. MacVicker Smith, Robert S. Wade, and E. D. Kilbourne were heard by the society and voted on. All three were taken into membership of the association.

4. The question as to expenses for the Woman's Auxiliary during the meeting of the Southern California Medical Association in Santa Ana in April was discussed. It was moved and carried that the society allow \$25 for the Auxiliary for this occasion.

5. A report of the proposed Southern California meeting was given by Dr. M. W. Hollingsworth, program chairman. Plans for this meeting by his committee and the Woman's Auxiliary were given in detail. The question as to whether our regular April meeting should be postponed on account of the Southern California meeting was discussed, but by vote it was decided to hold our regular April meeting as usual.

Dr. Lyell C. Kinney was then introduced to the members, and gave a very interesting talk on the State Association, stressing three proposed objectives at this time, namely: (a) Incorporation. (b) Basic Science Law. (c) Medical service to those of small salaries.

Dr. Mott H. Arnold, councilor of the first district, was introduced and gave a short talk.

Dr. LeRoy Crummer of Los Angeles gave the principal address of the evening on "Angina Pectoris." It was a very interesting discussion of the subject and was very capably handled by the speaker, who gave many of his personal opinions and experiences on this type of heart disease.

At the end of this paper Doctor Cushman moved that a vote of thanks be extended Doctors Crummer, Kinney, and Arnold for their effort in making this meeting a very decided success. It was unanimously carried.

On motion the meeting adjourned.

HARRY G. HUFFMAN, *Secretary*.

PLACER COUNTY

The Placer County Medical Society held its monthly meeting Saturday evening, March 15, in Auburn, President Max Dunievitz presiding.

There were present the following members and visitors:

Members—Doctors Dunievitz, Durand, Woodbridge, C. E. Lewis, Myers, William Miller, Thoren, Mackay, L. C. Barnes, Monica Stoy Briner, Fay, Rooney, and Peers. Visitors—Doctors Morton R. Gibbons, president of the California Medical Association; L. E.

Jones of Roseville, and H. M. Kanner, C. B. Jones, J. L. Fanning, G. A. Foster, E. W. Beach and O. S. Cook of Sacramento.

Dr. Louis E. Jones of Roseville was elected to membership, subject to the approval of the state office.

The guest of honor was Dr. Morton R. Gibbons, who addressed the society on matters pertaining to industrial accident work and other subjects of interest to the profession. Doctor Gibbons explained the main features of the Workman's Compensation, Insurance and Safety Act, stressing the rights of the insured and those of the members of the profession. Doctor Gibbons discussed at length many of the subjects now before the profession and which are being carefully studied by the Council, including the Basic Science Law, social insurance, other forms of health insurance, our state journal, the finances of the state society, and the subject of dues.

At the close of Doctor Gibbons' address these matters were very fully discussed by all members present, and many questions were asked by the members and answered by Doctor Gibbons.

Doctor Mackay discussed the recent appointment by the Board of Supervisors of a milk inspector for Placer County. It was the opinion of the majority of the members present that the action of the board should be upheld.

Doctor Rooney spoke briefly regarding legislation relating to the prescribing of narcotics and alcohol by members of the profession, condemning the present tendency to restrict physicians in their professional work.

Before adjournment Doctor Dunievitz stated that the next meeting would be held in Grass Valley on a date to be announced later. He reported that the speakers of the Grass Valley meeting would be former Nevada County residents now practicing in San Francisco.

ROBERT A. PEERS, *Secretary*.

SACRAMENTO COUNTY

The first regular meeting of the Sacramento Society for Medical Improvement for the year 1930 was called to order by the president, Dr. Gustave Wilson, in the Senator Hotel on January 21. Fifty-three doctors were present.

The minutes of the November 1929 meeting were read and approved.

Dr. F. Gundrum reported the interesting case of a woman who had had a mitral stenosis for twenty-five years and who suddenly developed an auricular flutter following exertion. Digitalis had no effect, but quini-din in small doses, one grain three times a day, increasing by one grain daily, changed the flutter to a fibrillation. A few days later she developed a sudden pain in the abdomen, with numbness, tingling, and cyanosis of both feet. Thrombosis at the bifurcation of the aorta, which this patient had, is a rare condition.

There being no further cases reported, the paper of the evening was delivered by Dr. Alfred C. Reed, professor of tropical medicine at the University of California Medical School. The subject was "Some Medical Problems of the Orient." Doctor Reed had recently traveled through Egypt, Syria, Persia, India, the Federated Malay States, and China, studying the diseases peculiar to these countries, noting their epidemiology, pathology, and treatment. The diseases specially mentioned were amebiasis, leprosy, Bill-oth's disease, bacillary dysentery, rabies, and sun-stroke. The paper was illustrated by lantern slides from the pictures Doctor Reed had taken, which made the talk very interesting. Appreciation of the paper was voiced by Doctors Gundrum and Johnson.

The application for membership from Dr. Lloyd C. Austin was read. This being the first reading no action was taken. Doctor Fanning's transfer was also read.

Doctor Sampson announced the staff meetings at the Sacramento Hospital on the fourth Tuesday each month. Members were urged to attend.

Doctor Hall asked the doctors to report all cases of pneumonia.

It was moved and seconded that the secretary be instructed to inquire about reservations for delegates and alternates from this society to the annual convention of the California Medical Association at Del Monte. Motion carried.

There being no further business the meeting adjourned.

FRANK WARNE LEE, *Secretary*.

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SAN BERNARDINO COUNTY

The meeting of the San Bernardino County Medical Society was held at the County Hospital in San Bernardino, March 4. The meeting was called to order at 8:10 p. m.

The minutes of the previous meeting were read and approved.

The secretary spoke briefly concerning the present status of the Coffey-Humber treatment of cancer.

The program of the evening was then entered upon:

The Neurological Aspect of Relief of Pain in the Various Parts of the body—Mark Albert Glaser of Los Angeles. Illustrated by lantern slides. Discussion opened by W. A. George of Loma Linda.

The Medical Aspect of Pain—Samuel D. Ingham of Los Angeles. Discussion opened by C. L. Emmons of Ontario.

Luncheon at 10:30 o'clock.

* * *

Owing to the changes in the new constitution the delegates and alternates are now elected for two years, one-half being elected each alternate year. This necessitates the following changes: Dr. W. F. Pritchard and Dr. A. T. Gage for 1930; Dr. F. F. Abbott and Dr. S. B. Richard for 1930-31.

A letter from Doctor Stivers was read concerning a talk on speech defect to be given before the medical society. As it is impossible to reconcile conflicting dates this program will have to be postponed.

The following milk commission has been appointed by the President for the current year: Dr. K. L. Dole of Redlands, Dr. C. I. Emmons of Ontario, Dr. C. F. Whitmer of Colton, Dr. W. A. Taltavall of Redlands, Dr. J. W. Whitsett of Redlands, and Dr. W. W. Fenton of San Bernardino.

Meeting adjourned at 1:30 o'clock.

E. J. EYTINGE, *Secretary*.

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SAN JOAQUIN COUNTY

The stated meeting of the San Joaquin County Medical Society was held Thursday evening at eight o'clock, March 6, in the Medico-Dental Club, 242 North Sutter Street, Stockton. This was a joint meeting at which the Seventh District Dental Society were guests.

The meeting was called to order by Dr. H. E. Kaplan, president. The minutes of the previous meetings were read and approved.

Doctor Kaplan introduced Dr. Nathan Sinai, who addressed the society on the subject of "Medical Trends."

The speaker described the effect on the public of the great number of articles relative to medical care in current publications. The effect of these articles is to build up, on a very flimsy basis of facts, a dangerous public opinion as to methods for correcting any defects that may exist in medical care.

Evidences of dissatisfaction with our system of medical care are to be seen among the groups supplying service as well as the public which receives it. Each group seems to have its particular cause or causes for complaint, most of the complaints having an economic basis.

Apparently the widespread dissatisfaction points to inevitable changes in our system of medical care, and

these changes may take either an evolutionary or revolutionary course.

The Committee on the Cost of Medical Care was organized to carry on a comprehensive study of our system of medical care so that any changes which might seem necessary, as a result of study, may be brought about in an orderly and unemotional manner. The committee stresses the fact that no preconceived opinions concerning the future of medical care are held. The committee further asks that any opinions or plans for correcting any conclusions regarding alleged defects in our present system should be held in reservation until its studies have been completed.

The committee proposes to make complete studies of medical facilities in San Joaquin County. The study is to be made through questionnaires, interviews, and analyses of whatever data are available.

From like studies to be made in other parts of the country and from over twenty additional studies of medical care the committee hopes to arrive at some solution of the problem, to the end that all of the people, regardless of their means, may secure adequate and scientific medical care.

The discussion was opened by Doctors Dewey R. Powell, J. F. Doughty, and J. J. Sippy for the medical men, and by Doctors Jerry O'Brien and H. J. McGilvray for the dentists. The paper was further freely discussed by Doctors McGurk, Chapman, Looser, Thompson, S. H. Hall, Walker, D'Amico, Foard, and Dooley.

The president appointed the following special committee, cooperating with the Committee on Cost of Medical Care: Doctors Dewey R. Powell (chairman), McGurk, Chapman, Barnes, Sippy, Doughty, and C. V. Thompson.

Doctor Barnes presented the matter of the Porter Narcotic Bill, now pending before Congress, and moved that the secretary be instructed to send telegrams to each representative and senator at Washington protesting the passage of this bill. Motion was duly seconded and carried.

The meeting was attended by members from the medical society and dental society both. Those present were: Dr. Nathan Sinai, Dr. F. R. Prince, president of the dental society; and eighteen other dentists as guests. Medical members present were: Doctors S. R. Arthur, Blackmun, Broadus, Chapman, Conzelmann, Doughty, Dozier, Davison, Foard, Frost, Gallegos, Goodman, Hammond, Kaplan, Looser, McCoskey, McGurk, McNeil, Marnell, Owens, Peterson, Pinney, D. R. Powell, Rohrbacher, Sanderson, Sheldon, Sippy, Margaret Smyth, C. V. Thompson, Vischi, and Walker.

There being no further business, the meeting adjourned for refreshments and social hour.

C. A. BROADDUS, *Secretary.*

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TULARE COUNTY

The regular monthly meeting of the Tulare County Medical Society was held Sunday evening, February 23, at Motley's Café. The meeting was called to order by Dr. H. G. Campbell, president, at eight o'clock. Minutes of the previous meeting were read and approved.

The following were unanimously admitted to membership: R. C. Hill, George B. Dewees, and K. F. Weiss.

Members present: Doctors C. C. Bond, Groesback, A. Bond, Brigham, Campbell, Tourtillot, Lipson, Gilbert, Zumwalt, Seligman, Weiss, Hill, Dewees, and Ginsburg.

Dr. J. C. Geiger of Hooper Foundation, University of California, gave a very interesting address on "Cerebrospinal Fever on the Pacific Coast." The address was illustrated with lantern slides.

A vote of appreciation was expressed by the society to Doctor Geiger for his address.

There being no other business the meeting closed at 9:30 o'clock.

S. S. GINSBURG, *Secretary.*

VENTURA COUNTY

The March meeting of the Ventura County Medical Society was held March 11 at the clinic of Ventura County Hospital.

Vice-president W. S. Clark opened the meeting. The members present were: Doctors Coffey, Jones, Patton, Welsh, D. G. Clark, Felberbaum, Schultz, Bardill, Yoakum, Achenbach, Shore, Homer, Smolt.

Doctors W. H. Leake and Claude Davison of Los Angeles were present at guests. The minutes were read and after a correction of the roll, striking out the name Johnson, were approved.

Letters were read from the University of California Medical School, and the Committee on Associated Societies of the State Association.

Doctor Welsh inquired about a uniform fee schedule for the county. Discussion developed the opinion that there is no such schedule in force at present and that none is desired.

The business meeting was then closed and Doctor Clark introduced the speaker of the evening, Dr. William H. Leake. Doctor Leake is a senior attending physician at Los Angeles County General Hospital and is connected with the medical school of the University of Southern California. His subject was "Cardiac Symptoms in Thyrotoxicosis."

Doctor Leake emphasized the fact that abnormal cardiac rhythm is not in itself a contraindication to thyroidectomy. He also described in detail the pre-operative preparation of goiter cases, especially the use of Lugol's solution and digitalis. The use of quinidin in correcting persistent arrhythmia after operation was also well set forth. In conclusion three case histories of interest were read and commented upon. Doctor Leake then answered questions upon hyperthyroidism in general.

Dr. R. M. Jones was appointed by Doctor Clark to arrange the program for the April meeting and the members adjourned.

CHARLES A. SMOLT, *Secretary.*

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YOLO-COLUSA COUNTY

A regular meeting of the Yolo-Colusa Medical Society was held at Davis on March 5.

G. H. Hart and H. H. Cole of the Division of Animal Husbandry of the College of Agriculture presented a paper on their studies with the sex-maturing hormone of the pituitary gland (anterior hypophysis). This consisted in a discussion of the research work that has been going on during the last few years on the anterior hypophysis hormone and also folliculin or estrin, a second hormone affecting the genital tract, probably produced in the Graafian follicle.

The work had been done on blood samples of pregnant mares and urine of pregnant women. Demonstrations were also made on immature white rats which had been brought to sexual maturity by the injection of blood and urine from cases in various stages of pregnancy. It showed this to be a very satisfactory biological test for the diagnosis of pregnancy in the early stages in both humans and animals.

Microprojection apparatus was used to demonstrate the changes taking place in the ovaries of the rats. These showed changes from the enlargement of a single follicle to very extensive changes in many follicles, including ovulation, with a demonstration of the ova in the oviduct, depending on the concentration of the hormones in the blood or the variations in the size of the dose from the same sample of blood from mares. The evidence presented showed that in all probability the effect of the anterior hypophyseal hormone was to produce development of one or more Graafian follicles which in turn probably produce folliculin which caused the changes in the uterus and vagina.

A demonstration was also made of the characteristic cell picture from vaginal smears in rats at various stages of the cycle.

In working with spayed mature and immature rats, as compared to nonspayed immature rats, it was

shown that a considerably larger dose of serum (thirty cubic centimeters) was required to demonstrate the presence of folliculin in spayed rats, whereas a single injection of one cubic centimeter of the same serum into unsprayed immature rats produced the characteristic hypophyseal hormone changes in the ovary.

The studies showed a varying concentration of the hormone in the blood of a pregnant mare, its first appearance being demonstrated from thirty-seven to forty-two days after pregnancy, as compared to a much earlier appearance in pregnant women. This was followed in the mare by a rapid increase in the concentration between the forty-fifth and eightieth days, followed by a gradual decline to the one hundred and eightieth day, when the ovaries of the injected rats were again comparable in size to the controls.

There was also a discussion of the application of this knowledge to clinical medicine and to animal husbandry.

An article on this work will soon appear in the *American Journal of Physiology*.

The meeting then adjourned to inspect the new Animal Science Building. The several different chambers for the estimation of the basal metabolism of insects and animals of all sizes were shown and explained.

Expressions of appreciation to Doctor Hart and his confères and thanks for their time and efforts were then given.

W. E. BATES, *Secretary-Treasurer*.

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YUBA-SUTTER COUNTY

A meeting of the Yuba-Sutter Medical Society was held on February 11 last, and Dr. Hans Lisser of San Francisco gave a very delightful and instructive lecture on endocrines, etc. The lecture was illustrated by lantern slides, and all statistical facts were brought out clearly. There was a full attendance of the society, and a vote of thanks was extended to Doctor Lisser for his lecture and his coming to our meeting.

At the meeting of the society on March 11, Dr. P. B. Hoffman was elected as delegate and Dr. F. W. Didier as alternate to the California Medical Association House of Delegates.

The meeting was held in the Marysville Hotel and was well attended.

The speaker of the evening was Dr. Albert Rowe of Oakland. His subject, "Food Allergy—Its Control by Elimination Diets," was well appreciated. The subject was a little different from the better understood specialties, and a vote of thanks and due appreciation was given to Doctor Rowe.

The subject was one more or less observed but never taken into the deep consideration it should have had; and the enlightenment caused by Doctor Rowe's lecture will make amateur allergists out of all of us.

F. W. DIDIER.

CHANGES IN MEMBERSHIP

New Members

Alameda County—Benjamin Warren Black.

Fresno—Everett Morris, Harry A. Randel.

Imperial County—Augustus Hunter Foster.

Los Angeles County—Robert James Bowman, Edward E. Hethcock, John Ernest Jackson, Israel Klein, Elbert B. Liddell, Guy Oliver McKeehan, Clarence Eugene Schuetz, Milton J. Tobias, Earl Willson Wells.

Marin County—R. Martha Allen.

Monterey County—Raymond J. Cluen, Sydney H. Smith.

Napa County—John Robertson.

Orange County—Ralph Carr Green, Samuel J. Walker, Murray Bates.

Riverside County—William E. Gardner, Jesse N. Roe, Harry C. Reynolds, Herman John Wickman.

San Francisco County—Horace Gray, Frank Bernard Hand, Chauncey D. Leake, Charles F. Sanborn, Abraham Blackburn Sirbu.

San Luis Obispo County—Charles E. Brown, Daniel H. Craig.

Santa Clara County—Bertha Stuart Dymont.

Yolo-Colusa County—E. Haskins Gray, Oscar C. Railsbach, Rulon S. Tillotson.

Transferred Members

Otis A. Sharpe, from San Francisco to San Mateo County.

Louis O. Wallace, from Sonoma to New Hampshire.

Charles H. Lewis, from Los Angeles to San Francisco County.

Hobart P. Shattuck, from Los Angeles to Arizona. Jay Jacobs, from Lassen-Plumas to San Francisco County.

Herbert Q. Willis, from San Joaquin to Orange County.

Clement E. Counter, from San Bernardino to Orange County.

George Franklin Shiels, from San Francisco to San Mateo County.

Henrietta Frederickson, from Los Angeles to Sonoma County.

Resignations

San Francisco County—Charles E. Taylor, William L. Rogers, Enrique M. Aldana, Paul S. Barrett, William L. Blanck, Paul G. Capps, Victor d'Ercole, Henry L. Holzberg, Thor Lude, Madeline M. Manuel, J. Edward Neville, Maurice W. O'Connell, Eva C. Reid, Max Salomon, W. Francis B. Wakefield, Conrad Weil.

Los Angeles County—Kawor Iseri.

Deaths

Beckwith, Ward M. Died January 15, 1930, age 73 years. Graduate of Columbia University College of Physicians and Surgeons, New York, 1889. Licensed in California 1891. Doctor Beckwith was a member of the Alameda County Medical Society, the California Medical Association, and the American Medical Association.

De Loss, Herbert. Died December 27, 1929, age 70 years. Graduate of Rush Medical College, Chicago, 1888. Licensed in California, 1892. Doctor De Loss was a member of the Alameda County Medical Society, the California Medical Association, and the American Medical Association.

Leavitt, Edgar Irving. Died March 7, 1930, age 41 years. Graduate of Cooper Medical College, San Francisco, 1910. Licensed in California, 1910. Doctor Leavitt was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

McArthur, William Taylor. Died March 11, 1930, age 64 years. Graduate of University of Toronto Faculty of Medicine, Ontario, 1895. Licensed in California, 1895. Doctor McArthur was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

McClish, Clark Loring. Died February 17, 1930, age 55 years. Graduate of University of California Medical School, Berkeley, 1904. Licensed in California, 1904. Doctor McClish was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

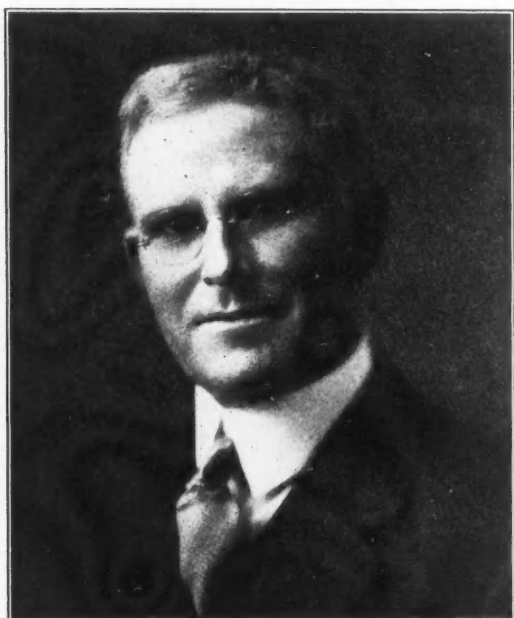
Miller, Allan Percy. Died February 20, 1930, age 50 years. Graduate of McGill University Faculty of Medicine, Montreal, 1905. Licensed in California, 1909. Doctor Miller was a member of the Los Angeles County Medical Association, the California

Medical Association, and the American Medical Association.

Owens, William Dunlop. Died February 13, 1930, age 51 years. Graduate of Georgetown University School of Medicine, Washington, D. C., 1901. Licensed in California, 1920. Doctor Owens was a member of the San Diego County Medical Society, the California Medical Association, and the American Medical Association.

Rubin, Joseph Salem. Died January 18, 1930, age 30 years. Graduate of University of California Medical School, Berkeley, 1926. Licensed in California, 1926. Doctor Rubin was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

OBITUARIES



William Taylor McArthur
1866-1930

William Taylor McArthur has gone from us—capable surgeon, orator of native wit, devoted worker for organized medicine, and beloved physician and loyal friend.

Born sixty-three years ago of sturdy Scotch parentage in Ontario, Canada, in an environment of simplicity, sincerity and earnestness, he grew to manhood with these attributes dominating his life. There were no great libraries in the woods of Canada when he was a youth, but there was Burns and Scott and Shakespeare and the Bible, and these few classics were so well mastered in youth that excerpts from the memories of that reading were a never failing source of pleasure to his audiences—public or private.

Doctor McArthur graduated from the Owen Sound Collegiate Institute in 1891 and from the medical department of the University of Toronto in 1895. Following his graduation he located in Los Angeles in 1895, and remained there with the exception of time for postgraduate study in London and in Edinburgh, from the university of which latter city he received the degree of F. R. C. S. In 1901 he resumed practice in Los Angeles until his death on March 11, 1930.

From 1907 to 1911 he was Professor of Surgical Anatomy in the University of Southern California.

He was a lecturer on artistic anatomy in the Los Angeles School of Art and Design. For many years he was an attending surgeon at the Los Angeles General Hospital. He was a member of many clubs, civic and social organizations, his attendance at any being always hailed with pleasure by his fellows.

But it was in organized medicine that Doctor McArthur took the greatest interest and perhaps his greatest satisfaction so far as civic or public life was concerned. He knew the need of organization and he believed in its future. For more than twenty years there was no time when the name of W. T. McArthur did not appear in the councils of the county, state or district medical organizations.

He served as a councilor of the Los Angeles County Medical Association for many years and was a member of its board of trustees from the organization of that body until his death. After having served as councilor of the State Association for many terms, he was elected president of the California Medical Association for 1926-1927.

Doctor McArthur's usefulness in these important positions was due to his mental poise and judicial mind. He gathered facts and viewed them from all angles, and his final decision was always deliberate and judicial. Nobody questioned his sincerity; none doubted his honesty. With him patience worked the perfect work. No matter how serious or how important the matter, Doctor McArthur could always see a humorous side that brought a laugh or a smile at some solemn stage of the proceeding. In private conversation and in public address he was noted for his wit, but it was ever wit without a sting.

In 1904 Doctor McArthur was married to Mary D. Smith of York, Pennsylvania, who survives him. The McArthur home has been known for its hospitality to the medical profession. Mrs. McArthur has sympathetically cooperated with her husband's work in a most devoted manner. Four children were born: Mary, Elizabeth (Mrs. Henry Duque of Cambridge, Mass.), William T. Jr., and Duncan. Four brothers survive: The Honorable Robert T. McArthur of Moorfield, Ontario; James McArthur of Ontario, Dr. Peter R. McArthur and Dr. Duncan D. McArthur of Los Angeles.

In his professional life Doctor McArthur was individualistic. His patients were his people. He was a "doctor of the old school"—a "Weelum McClure" of McLaren's "Bonnie Briar Bush." Indeed, James Main Dixon and others referred to him always as "Weelum." What finer tribute could be paid a physician? Who could crave one higher!

Now is the stately column broke,
The beacon light is quenched by smoke,
The trumpet's silver sound is still,
The warder silent on the hill.

Joseph Truesdale Breneman 1849-1930

In the death of Doctor Breneman the Contra Costa Society has lost one of its oldest and most loved and respected members.

Doctor Breneman practiced for fifty of the eighty-one years of his useful life, thirty-eight of these active years being spent in California.

He was born on a farm in Hancock, Ohio, on January 23, 1849 and, following the usual preliminary public school education, he received his medical degree from the University of Iowa in 1879. Two of his classmates survive him; one, Dr. P. K. Waters of Watsonville visited him during his last illness.

Doctor Breneman was respected by his fellow physicians and especially by the members of the Contra Costa County Society for his strict adherence to the ethics of medicine; for his keen mind, and his constant interest in the progress of medicine and the world.

THE WOMAN'S AUXILIARY OF THE CALIFORNIA MEDICAL ASSOCIATION*

CONTRA COSTA COUNTY

The second meeting of the Woman's Auxiliary to the Contra Costa Medical Society was held Tuesday evening, March 11, at the Richmond Conservatory of Music, 906 McDonald Avenue, Richmond.

The meeting was called to order by Mrs. J. M. McCullough, president.

The minutes of the previous meeting were read and accepted.

The president appointed the following chairmen: Membership—Mrs. H. L. Carpenter (telephone, Richmond), Mrs. P. C. Campbell (telephone, Martinez), and Mrs. I. O. Church.

Entertainment—Mrs. W. E. Cunningham.

Philanthropy—Mrs. A. H. Beede.

Education—Mrs. N. L. Fernandez.

Mrs. I. O. Church was appointed chairman of arrangements for the next meeting.

The possible activities of the auxiliary were discussed.

There being no further business the meeting was adjourned.

HELEN WEIL, *Secretary*.

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LOS ANGELES COUNTY

The first regular meeting of the Woman's Auxiliary of the Los Angeles County Medical Association was held on Thursday afternoon, February 20, in the assembly hall of the Friday Morning Club building, Mrs. James F. Percy, president, presiding. Mrs. Martin G. Carter, secretary-treasurer, read the minutes of the former gathering.

Mrs. Nell Lockwood Josephs added to the pleasure of the occasion with several songs, after which the president, with her usual grace, introduced the speaker of the afternoon, Dr. Percy T. Magan. In effect, Doctor Magan summarized the function of the Woman's Auxiliary as that of helping the physician to do the important things that he is unable to do himself because of the stress of his vocation. The conscientious doctor spends all his time in studying the problems of how he can prolong life, preserve health, prevent suffering, and thus adds to human happiness, which is so tremendous a problem that the doctor has little time for anything else.

And yet there are important problems that confront the doctor quite as much as any other person—problems that concern his own profession directly. Social problems and situations, things political, religious activities that form the warp and woof of our civilization. And it is in these very things that the Woman's Auxiliary—the wives, sisters, and daughters of the physician, who know and appreciate his needs more than others in the community—can be helpful.

The consummation of this combination should mean everything to the welfare of the community as well as to the welfare of the physicians in the community. For, after all, their aims and objects and ambitions are the same.

The regular meetings of the Woman's Auxiliary will be held on the third Thursday of every second month, the next meeting being on April 17 in the assembly hall of the Friday Morning Club building.

CORA YOUNG WILLIAMS,

Publicity Chairman.

* As county auxiliaries to the Woman's Auxiliary of the California Medical Association are formed, the names of officers should be forwarded to the state secretary-treasurer, Mrs. R. A. Cushman, 632 North Broadway, Santa Ana, and to the California Medical Association office, Room 2004, 450 Sutter Street, San Francisco. Brief reports of county auxiliary meetings will be welcomed for publication in this column. See advertising page 6 of each issue for state and county officers.

Executive Board Meeting of the Woman's Auxiliary of the Los Angeles County Medical Association.—Mrs. James F. Percy called the meeting to order at 1:40 p. m. February 20 at 940 South Figueroa Street.

Mesdames Carter, Percy, and von Wedelstaedt were present.

Moved, seconded, and carried that bills amounting to \$102.95 be approved as paid.

After a general discussion of plans for future meetings, there being no further business to come before the board, the meeting adjourned after having approved the above minutes.

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Regular Meeting of the Woman's Auxiliary of the Los Angeles Medical Association.—Mrs. James F. Percy called the meeting to order at 2:45 p. m. February 27 at 940 South Figueroa Street.

The minutes of the organization meeting on December 27, 1929, were read and approved.

The standing rules of the auxiliary, as adopted by the Executive Committee, were read by the secretary.

After the president's announcements, Mrs. Nell Lockwood Josephs sang.

Dr. Percy W. Magan, the speaker of the afternoon, chose for his subject "The Hand That Holds the Doctor's Heart Is the Hand That Moulds the Healing Art."

After the meeting adjourned, tea was served and a social hour enjoyed.

The following signed as additional charter members:

MESDAMES

Samuel M. Alter
E. W. Ames
Harry E. Anderson
Howard Andrews
Arthur J. Annis
Edward D. Anthony
Francis L. Anton
Edwin W. Askey
John M. Askey
Thomas C. Austin

Robt. V. Baker
R. W. Baker
A. J. Balkins
H. O. Barnes
H. D. Barnard
Roger W. Barnes
Samuel G. Bay
Horace R. Beck
Ben M. Behr
Elmer A. Belt
Chas. L. Bennett
Curtis Bland
Peter H. Blong
A. E. Boland
Vincent Bonfiglio
Oliver P. Bourbon
W. A. Boyce
Walter H. Boyd
H. B. Breitman
A. Brockway
Page Brown
Chas. E. Browning
Harry E. Bryant
Richard O. Bullis
James H. Burgan
Lloyd A. Burrows
Frank Byington

Clayton C. Campbell
John Carling
J. K. Carson
Miss Kingsetta Carson
William F. Carver
Chas. R. Caskey
R. W. Cavell
Rafe B. Chaffin
Ben H. Chamberlain
H. H. Chamberlin
H. L. Charles
Raymond E. Chase
A. C. Christensen
Fred B. Clark
R. M. Clark
Harry W. Coffin
George L. Cole
A. B. Cooke
John C. Copeland
Carl C. Cowlin
Jay J. Crane
Lawrence L. Craven
Leonard E. Croft
J. Carl Cummings

R. A. Davis
Claude E. Davison
Robert V. Day
James R. Dean
Richard Dewey
Ed. W. Dougherty
Paul S. Dougherty
C. O. Driver
R. M. Dunsmoor

Earl Eames
Philip J. Edson
H. D. Edwards
Jos. T. Edwards
Newton G. Evans
F. B. Exelby

Roy E. Fallas
Franklin G. Farman
R. M. Farnham
James J. Farrell
W. Max Fearon
Louie Felger
P. Ashley Foster
Julius Frankl
H. J. Friesen
J. Frank Friesen
Chas. E. Futch

C. R. Gaillmard
Peter A. Gallant
W. Morton Gardner
Donald B. Garstang
Albert C. Germann
O. E. Ghrist
Dozier H. Gibbs
Jacques S. Gilbert
Mark A. Glasser
Scott D. Gleeten
Leon D. Godshall
Jos. Goldstein
Oscar Goodley
A. Gottlieb
Ben E. Grant
James Green
L. H. Greenbaum
Sutton H. Groff
Robert E. Grogan
Lowrie Grow

Clemen Hamer
Clyde E. Harner
Trustin M. Hart
P. F. Haskell
R. F. Hastreiter
Ed. W. Hayes
John R. Haynes
Atlas T. Hembree
Francis C. Hertzog
O. C. Hester
Daniel L. High
M. R. Hill
R. M. Hippach
W. W. Holley
John H. Hooval
Arthur D. Houghton

John A. Jackson
Robert J. James
Joseph J. Jelineck
Simon Jesberg
Russell A. Jewett
Elmer H. Johnson
Archie A. Jones
D. N. Jones
I. H. Jones
I. W. Jones
Louis Josephs
Herbert Judson

Julius Kahn
Benjamin Katz
Louis A. Kempff
Raymond W. Kelso
Norman J. Kilborne
William F. Kroener

J. Mark Lacey
Wyant La Mont
Eric E. Larson
William O. Leach
William H. Leake
Lawrence E. Lepper
Silas A. Lewis
C. A. Lindquist
Harry C. L. Lindsay
J. L. Linn
Henry H. Lissner
Fred Loring
Charles Le Roy Lowman
James B. Luckie
Le Val Lund

Granville MacGowan
Ernest MacLeod
William F. McCool
John L. McDaniels
Ralph W. McKebby
A. E. Mack
George E. Malsbary
George D. Maner
M. Lee Martin
E. Signe Maxson
E. M. Miller
Harry A. Miller
Miss Verda C. Miller
Hyman Miller
L. L. Miner
Oliver M. Moore
Ross Moore
R. J. Morrison
H. J. Movius
H. Wallace Murray

Arthur N. Nelson

Robert E. O'Connor
Thomas J. Orbison
Frank M. Otto
G. R. Owen

P. G. H. Pahl
Wilbur B. Parker
George Parrish
Harold E. Peterson
Charles E. Phillips
M. L. Plndell
J. E. Pottinger
Bonnie L. Pritchett

Paul A. Quaintance

R. E. Ramsay
Howard F. Rand
Rankin S. Reiff
Louis Reinard
Sidney M. Reiser
Oscar Reiss
Lewis D. Remington

ELLA R. CARTER (MRS. MARTIN G. CARTER),
Secretary.

ORANGE COUNTY

The Orange County Auxiliary held its third meeting at Mrs. Cushman's home on March 4, with the state and county secretaries assisting the hostesses. Dr. K. H. Sutherland, head of the County Health Department spoke on the subject of "County Health Administration."

A committee on entertainment was appointed to arrange a program for the entertainment of the women relatives of physicians who attend the Southern California medical convention to be held in Santa Ana April 4 and 5.

After the formal program, tea and coffee were served and an hour of sociability was enjoyed. There were twenty-eight members present.

Francis C. Renfrew
Louis G. Reynolds
Fredrick A. Rhodes
John H. Rindlaub
Frank O. Ringnell
F. W. Rinkenberger
Clinton Roath
Aaron Rosanoff
Eric A. Royston
E. H. Ruediger

Ralph William Schaeffer
George F. Schenck
Phillip E. Schmidt
Moses Scholtz
Arnold Scholtz
LeRoy O. Schultz
Edwin G. Schultz
Raymond L. Schultz
D. Z. Schwartz
A. J. Scott, Jr.
Paul K. Sellow
Francis B. Settle
Charles L. Sexton
James H. Seymour
B. H. Sherman
Leroy B. Sherry
Charles Shickle
O. F. Shipman
Harlan Shoemaker
Leon Shulman
John R. Silverthorn
J. Morris Slemmons
Orville J. Sloan
E. P. Smart
Mark H. Smith
Myrtle M. Smith
Grant G. Spier
H. Waldo Spiers
Karl P. Stadlinger
Morris Stark
George M. Stevens
C. G. Stivers
Lionel A. B. Street
Charles T. Sturgeon
C. N. Suttner
Miss M. D. Suttner
C. F. Swanson
Louise D. Sweet
William A. Swim

L. E. Thayer
Roy E. Thomas
George Thomason
C. E. Thompson
Raymond C. Thompson
Vernon P. Thompson
Milton Tobias
Clarence Toland
J. V. Trainor
Leslie D. Trott
Florence Turnquist
J. E. Vallee
Richard H. Van Denburg

Dean Q. Waddell
Mary E. Walker
Ruth S. Ward
J. W. Warren
Leigh F. Watson
John C. Webster
Alfred H. Weitkamp
S. H. Welch
Walter F. Wessels
Henry G. Westphal
Norman H. Williams
William W. Worster
Clifford A. Wright
George A. Wright

A. H. Zeller

The organization meets once each month, and it is planned to hold the meetings in private homes, the members feeling that in this way a spirit of mutual friendliness is engendered. The next meeting will be held with Mrs. F. H. Patterson.

MRS. DEXTER A. BALL, Secretary.

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SAN BERNARDINO COUNTY

The meeting of the Woman's Auxiliary of the San Bernardino County Medical Society was called by the president.

The secretary read the minutes of the previous meeting.

The treasurer's report was read and accepted.

Letters from Mrs. Jean F. Rogers, state president, Mrs. R. A. Cushman, state secretary, and from the Committee on Associated Societies of the California Medical Association were read by the secretary.

Mrs. Emmons suggested that notices of meetings be sent to the State Association with the notices of the county medical society if agreeable to the county society secretary.

Motion was made by Mrs. Walter Pritchard that the delegates to the state meeting remain as elected at the last meeting.

Dr. Belle Wood-Comstock of Los Angeles gave an informal talk on the work accomplished by organized medical women of Los Angeles. Their aim is to educate women whose lack of fundamental knowledge of anatomy and physiology make them an easy subject for quacks. During the six years that the medical women have had charge of the public health section of the women's clubs remarkable progress has been made in health education of woman, prejudices removed, and interest awakened among a very large group.

Dr. Wood-Comstock pointed out that the Woman's Auxiliary might follow a similar line of work in connection with the various women's clubs.

We were then entertained by three delightful and amusing readings by Priscilla Gage.

The meeting adjourned. After a social half-hour members of the auxiliary joined the doctors at the hospital for refreshments, which were presided over by the hostesses, Mrs. Richard, Mrs. Tisinger, and Mrs. Mulvane.

ETHEL E. CURTISS,
Secretary.

UTAH STATE MEDICAL ASSOCIATION

H. P. KIRTLEY, Salt Lake City.....President
WILLIAM L. RICH, Salt Lake City.....President-Elect
M. M. CRITCHLOW, Salt Lake City.....Secretary
J. U. GIESY, 701 Medical Arts Building,
Salt Lake City.....Associate Editor for Utah

COMPONENT COUNTY SOCIETIES CARBON COUNTY

One of the outstanding events of the past month in medical circles was the meeting and banquet of the Carbon County Medical Society held at the Rotisserie Inn, Price, February 25. A general invitation to the members of all other county societies was extended by mail, and was responded to to a large extent.

The scientific program was given by Doctors Howard Fleming and George Pierce, both of San Francisco, California.

Doctor Fleming's paper was on the "Treatment of Head Injuries," and Doctor Pierce's paper was on "Treatment of Hand Injuries." Both were illustrated with lantern slides.

The banquet was a fitting accompaniment to an excellent program, and the entire occasion was en-

joyed by all those present. In a sense, it was a get-together meeting and, therefore, doubly enjoyable. Salt Lake County Society came down in a special car and returned the next morning.



SALT LAKE COUNTY

A report of the committee regarding a communication from the Salt Lake General Hospital asking for the sentiment of this society in respect to professional cards being allowed in the year book of this institution was made. It was the sense of the committee that names of the doctors who would contribute to the magazine fund be printed in one page of the advertising section of that magazine. J. P. Kerby moved that the report be accepted. Seconded and carried.

The report of the board of censors on the application of J. M. Schaffer was to the effect that the applicant be notified to apply to the nearest component society of the Utah State Medical Association.

The applications of Maurice Gordon and J. R. Wherritt were read and given to the board of censors for investigation.

The applications of Mildred Nelson and Orin Ogilvie were favorably reported upon by the board of censors, and both were unanimously elected members of the society.

F. M. McHugh took the chair and announced that on February 24 there would be a dinner meeting at the Newhouse Hotel at 7 p. m.

The meeting was adjourned at 10 p. m.



The Salt Lake County Medical Society held a banquet at the Newhouse Hotel on Monday, February 24.

The meeting was called to order at 7 p. m. Fifty-three members and six visitors were present.

The program was as follows:

The Problems and Principles of Reconstructive Surgery—George Pierce, San Francisco, California.

Peptic Intracranial Complications—Howard Fleming, San Francisco, California.

At the close of the scientific program, President M. M. Nielson announced that on the following evening Doctors Pierce and Fleming would talk before the Carbon County Medical Society at Price. A special car would leave the Denver and Rio Grande station at 7:30 a. m. for Price, and would return at 10:30 the following morning. Members of the society were urged to join the excursion to the Carbon County Medical Society meeting.

The meeting adjourned at 10 p. m.

BARNET E. BONAR, *Secretary*.



UTAH COUNTY

On February 12 the Utah County Medical Society held a meeting. George A. Cochran of Salt Lake City was the speaker. The subject Doctor Cochran spoke on was "Diagnosis of Heart Lesions and the value of the Electrocardiogram in Same."

A series of electrocardiographs of the normal and pathological hearts was shown by lantern, and explanations of the same were given by Doctor Cochran.

Mr. Corsaw of the Pioneer Service Company took a short time to sketch the history and methods of attacks, and position of his company in the field of collecting accounts.

The second meeting of the County Medical Society was held February 26. Dr. L. Oaks was the speaker. He spoke on the subject, "Review of Clinical and Therapeutic Features of the Ear, Nose, and Throat Practice of Interest to the General Practitioner."

A motion was passed to appoint a committee to investigate proposed legislation in Congress to further control and hamper the medicinal use of narcotics, and if justified by the findings to wire the senators on the question.

J. L. AIRD, *Secretary*.

WEBER COUNTY

At the regular county society meeting held the evening of February 26, Dr. G. W. Pierce of San Francisco, California, addressed the Weber society on the subject of "Reconstructive Surgery." The lecture was illustrated with lantern slides, and was greatly enjoyed by the members present.

Dr. Clark Rich writes from Vienna, Austria, that he is greatly enjoying his postgraduate work in that city.

Dr. M. J. Seidner intends to sail for Europe the forepart of April for a few months of postgraduate work.

CONRAD H. JENSEN, *Secretary*.

UTAH NEWS

The Holy Cross Hospital Clinical Society held its February meeting at the hospital the night of February 17. The following papers were presented:

Volkman's Contracture, L. N. Ossman. Osteomyelitis of the Vertebra, L. F. Hummer. Report of Meningitis, Doctor Walker. Death from Tonsillectomy, F. B. Bailey.



The recent meetings of the Academy of Medicine which meets each Thursday have presented the following programs on the specified dates:

February 13—Arteriovenous Aneurysm, Dr. George Middleton. Spastic Colitis, X-Ray Diagnosis and Treatment, Dr. R. Tyndale. Differential Diagnosis of Chest Conditions, Doctor Jellison.

February 20—Review of Wilkie's Article on Abdominal Surgery, Dr. L. A. Stevenson. Review of American College of Physicians Meeting in Minneapolis, Dr. La Barge.

March 6—Cardiac Neurosis and Irritable Heart, Doctor Viko. Spastic Colitis, Doctor Sugden.

Natural Gas Leakage Easily Detected by Odorizing with Ethyl Mercaptan.—The detection of leakage is a recognized problem in the safe and economic distribution and use of natural gas. That type of fuel gas is practically odorless and therefore lacking in the property of indicating significant leakage by the sense of smell, the most valuable and widely used means of apprising gas employees and consumers of leaks of the more odorous types of fuel gases. Physically and chemically operated detecting devices have been developed and are of assistance in making organized leak surveys and in investigating suspected leakage, but none of these meets the necessity of spontaneously indicating the location of leakage at the time of occurrence.

The United States Bureau of Mines, at its Pittsburgh Experiment Station, has been interested in the detection of leakage of fuel gases for a number of years, and particularly the leakage of types of gas that do not possess indicating or warning properties as odor or irritation. In view of this interest and also the recognized value of the odor for detecting leakage of the more odorous types of gases, the bureau studied the possibilities of adding small amounts of highly odorous substances to odorless types of fuel gas, as blue water gas and natural gas, for the purpose of imparting an odor to the gas that would be readily perceptible and thereby serve as a means of detection.

The results of the previous studies indicated that ethyl mercaptan was a very promising odorizing substance for natural gas. This has recently been substantiated by tests made in distributing systems of the Union Gas and Electric Company. The ethyl mercaptan was found to travel through the lines with the gas and, due to its powerful odor, was not only efficacious in giving warning of leaks in consumers' house piping, but made apparent underground leaks in distributing and service lines. In some cases leaks in the distributing systems and service lines were detected by persons walking or riding along the street.—United States Department of Health.

MISCELLANY

Items for the News column must be furnished by the twentieth of the preceding month. Under this department are grouped: News; Medical Economics; Correspondence; Department of Public Health; California Board of Medical Examiners; and Twenty-Five Years Ago. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Doctor Lokrantz Receives High Decoration From the King of Sweden.—Dr. Sven Lokrantz, medical director of Los Angeles city schools, has received a very high decoration from the King of Sweden on account of his health work for the children of California and in a lesser degree for the children of Sweden. The decoration is Knighthood of the Royal Order of Vasa, first class, which has been given out to only a very few men in this country.

Doctor Lokrantz, who is now an American, came to the United States as a young man at the age of eighteen. He was born in Stockholm, Sweden. Some time ago Doctor Lokrantz was partly instrumental in sending an ambulatory clinic to the needy children of northern Sweden. This clinic is now going from school to school caring for the pupils' eyes, ears, nose, throat, and teeth. Similar clinics were invented by Doctor Lokrantz for Los Angeles children, and many thousands of children have been aided here.

The Los Angeles School Health Department is rated as the leading department of its kind in the United States.

Mr. G. W. Olson, superintendent of the California Hospital, had been officially requested by the Swedish Embassy to present this decoration to Doctor Lokrantz.—*Bulletin of the Los Angeles County Medical Association*, March 6, 1930.

Metabolic Clinic at Carmel.—Dr. R. A. Kocher, director of the Grace Deere Velie Metabolic Clinic now being completed in Carmel, states that he hopes to have the clinic open by the time the Annual Meeting is held at Del Monte. In any event if not open, it will be ready for the members to visit and they will be shown through gladly.

Lane Medical Lectures, May 5-9, 1930.—Charles R. Stockard, M. D., Ph. D., Sc. D., Professor of Anatomy at Cornell University Medical School, New York City, will deliver the Lane Medical Lectures for the year 1930 at the Stanford University Medical School, San Francisco, California, on the following dates:

May 5.—Medical and Biological Aspects of Constitution.

May 6.—Germinal Constitution.

May 7.—Developmental Constitution.

May 8.—The Interplay of Inheritance and Environment in Constitution.

May 9.—Postnatal Reactions and Periodic Changes in Constitution.

Doctor Stockard will also give a lecture at Stanford University on Wednesday, May 7, at 4:15 p. m., on "Structural Types in Animals and Men."

Doctor Rixford Honored.—On March 27, ceremonies were held honoring Dr. Emmet Rixford, who became emeritus professor of surgery in Stanford University Medical School.

Surgeons of the colloquium of the Stanford School met at a luncheon on that day, when the new title was conferred.

Doctor Rixford served for several decades on the school staff.

San Francisco Pathological Society.—The regular meeting of the San Francisco Pathological Society was held on Monday, March 3, in the auditorium of St. Mary's Hospital, Hayes and Stanyan streets, at 8 p. m. The following program was presented:

Carcinoma of Gall Bladder—E. M. Smith.

Sarcoma of Male Breast—W. M. Dillon (by invitation).

Four Cases of Primary Lung Carcinoma, Chondrosarcoma of the Heart—F. Proescher.

Chronic Coccidioidal Dermatitis—H. E. Miller.

Chorionic Epithelioma—D. S. Pulford.

Multiple Myeloma—W. T. Cummins.

Members who have not paid their dues for 1929 (which is the sum of one dollar) are requested to forward them to the secretary. The dues for 1930 are now payable.

Meeting of Southern California Medical Association.—The eighty-second semiannual meeting was held in the Knights of Pythias Hall in Santa Ana on Friday and Saturday, April 4 and 5.

In addition to articles by well-known southern Californians, papers were presented by distinguished guests from other sections.

Dr. Alfred W. Adson, chief of the department of neurological surgery at the Mayo Clinic, spoke on "Indications for Sympathectomy."

Dr. William Dock of San Francisco reported the results of his latest studies on digitalis.

Dr. J. Herman Wylie, chief of the medical department of the Taylor Memorial Hospital at Paotingfu, China, spoke on "Western Medicine in China."

California District of the American Association of Hospital Social Workers.—The organization of the California District of the American Association of Hospital Social Workers has recently been completed and the following officers elected: Evelyn Phelps, chairman (Pacific Branch, American Red Cross); Marguerite Spiers, vice-chairman (Berkeley Health Center); Florence Swan, secretary (Baby Hospital, Oakland); Mrs. Beulah Spunn, treasurer (Alameda County Health Center).

The California district consists of two groups which center about San Francisco and the bay region and Los Angeles County and San Diego. The district officers will rotate north and south yearly. Miss Alice Kratka, Pasadena Dispensary, is chairman of the southern group.

The preliminary work of organizing was accomplished through the efforts of the California Association of Medical Social Workers with its branches in both northern and southern California and through a group of medical social workers in Alameda County hospitals and health centers and the hospital workers of the American Red Cross at Letterman General Hospital, San Francisco, and United States Naval Hospital, Mare Island. The last named groups had been meeting with some degree of regularity for a year and had been greatly assisted by a medical advisory committee consisting of the following physicians: Dr. B. W. Black, superintendent, Highland Hospital, Oakland, California; Dr. William Dock, Stanford University Hospital; Dr. Edward Glaser, State Health Department; Dr. Frank Kelly, Berkeley Health Center and University of California; Dr. William P. Lucas, University of California Hospital, Dr. Ralph Seem, superintendent, Stanford University

Hospital; Dr. William Shepard, Welfare Department, Western Division, Metropolitan Life Insurance Company.

It is the aim of the California district to help promote higher standards of social case work with patients, to encourage training facilities, and through contact with other districts in the United States to keep in touch with recent developments in technique.

The first hospitals in this country to recognize the need of hospital social service were Johns Hopkins Hospital and the Massachusetts General Hospital, the latter of which will this year celebrate the twenty-fifth anniversary of its establishment. In 1920 the American Association of Hospital Social Workers first came into existence. It has twelve districts and maintains both an executive and an educational secretary. During the past few years much work has been done in planning courses of training for medical social workers in connection with universities and affiliated hospitals, the most recent of which are the University of Chicago, Tulane University in New Orleans and Western Reserve in Cleveland. Two general meetings are held annually, one with the National Conference of Social Work and the other with the American Hospital Association. The California District will meet on May 16 at Santa Barbara as a kindred group of the California Conference on Social Work.

CORRESPONDENCE

Subject of Following Letter: A Woman's Medical College in China, and Its Needs

The Hackett Medical College for Women (the only one in China), located in Canton, a city of a million and a half, was established thirty years ago by Dr. Mary Fulton. Since then it has graduated 162 physicians, many of whom have become brilliant surgeons. The college and hospital (120 beds) have been provided, as need arose, by philanthropic Americans. Between 2000 and 2500 patients are annually cared for in the hospital. Over 10,000 are treated annually in the dispensary and between 20,000 and 25,000 outpatients are visited each year. In the Nurses' Training School the course is three and one-half years. The medical college requires seven years. Two preparatory years are devoted to botany, zoology, biology, physics, mathematics, and history of the medical sciences. Then four years of regular college work and, finally, an intern year. Both college and hospital are self-supporting, and yet fully one-half the patients treated are given free service, because of their poverty.

The unrest in China during recent years has increased the demand for service and, at the same time, has reduced the income of the college. The organization has been unable to purchase many of the really essential items of equipment. For instance, an x-ray machine is very much needed. Doctors Leung Ngai Man and Miriam Bell (the former, professor of gynecology, the latter, of pediatrics) are doing special work in this country.

They wish to appeal to physicians to contribute equipment which, for one or another reason, they are no longer using; and which is in good mechanical condition and worth the cost of transportation to China. Among equipment most needed might be mentioned: An x-ray machine; a fluoroscopic screen for same. Electric otoscopes. Electric refrigerator for preserving biologicals in the tropics. Electric operating lamp, shadowless. Sphygmograph and/or polygraph. Sphygmomanometers, and many other pieces. If any reader is willing to assist so notable a work, please correspond with Dr. Miriam Bell, 1264 N. Twenty-third Street, Philadelphia, Pennsylvania, or with Dr. John C. King, 990 Atchison Street, Pasadena, California.

JOHN C. KING.

(Editor's Note: Dr. John C. King was president of the California Medical Association in 1910.)

CLIPPINGS FROM THE LAY PRESS

The following clippings deal with the Los Angeles County General Hospital.* The first clipping is an excerpt from an article entitled "Supervisors Settle Row Over Hospital," printed in the Los Angeles *Examiner* of March 4, 1930:

"Friction between members of the Board of Supervisors over the cost of the new acute unit of the General Hospital, now under construction, came to a head yesterday. . . .

"... Upon the suggestion of Supervisor Frank L. Shaw, seconded by Fred T. Beatty, the supervisors unanimously agreed to continue the employment of the Allied Architects with the proviso that Supervisor Graves and County Architect Karl Muck attend all the deliberations of the architects and join in their discussions.

"It was also voted that the Allied Architects, who drew the original plan, should not plan a hospital for indigent poor that would be better and more perfectly appointed than the Biltmore or the Ambassador hotels. . . .

"... Supervisor Beatty stated that the board has invested \$792,967 in the Allied Architects and that they should be permitted to finish the work they began. He proposed, however, that Supervisor Graves and the county architect should have a voice and vote in all the deliberations of the Allied Architects. The supervisors also went on record to have the architects file with the board all changes and estimates of cost."

* * *

The following is an excerpt from an editorial (compare it with the last paragraph in the previous item) entitled "General Hospital Costs," printed in the Los Angeles *Times* of March 2, 1930:

"... The incident has served one good purpose in bringing to public attention the desirability of such expert and disinterested services as are being given the General Hospital project by the board of architects. . . . The county is exceedingly fortunate to have these men on the General Hospital job and the Supervisors should keep them there till the last brushful of paint is applied to the completed structure."

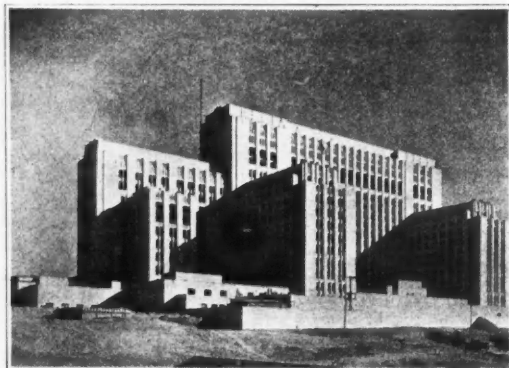
* * *

The following is an excerpt from an article entitled "Board Battles Over Hospital," printed in the Los Angeles *Times* of March 4, 1930:

"... The hospital situation first came to public attention two weeks ago when Supervisor Graves, chairman of the Building Committee, pointed out that under the then-existing specifications the estimate for the completed building had risen from an original \$11,000,000 to \$16,000,000. . . .

"... 'We have already paid the architects more than \$600,000,' said Supervisor Shaw, who added that if the unit were built according to present specifications, it would be 'the finest hospital in the United States.' He pointed out, however, that economy is more to be desired than the 'finest hospital in the United States,' and de-

* See also editorial on Construction Costs of Los Angeles County General Hospital in this issue of the California and Western Medicine.



The new unit of the Los Angeles County General Hospital. The photograph from which this cut was made was taken on December 26, 1929.

clared that the ultimate cost cannot be brought within the original estimate except by entirely rewriting the specifications for all the work remaining to be done. . . .

" . . . Supervisor Graves who, as chairman of the building committee, is the Supervisors' official representative in the construction of the hospital unit, replied that he had 'lost faith in the Allied Architects.'

"Six months ago they started rewriting specifications," Graves continued. "I objected and since then I have not been invited to their meetings, nor have I been advised when they were meeting." . . .

* * *

The following excerpt is from an article entitled "Hospital May Cost Extra Millions" from the Los Angeles *Record* of February 20, 1930:

" . . . Here are some of the 'extravagant refinements' which Supervisors Graves and Shaw say must go:

"More than 5000 metal doors, to cost more than \$700,000. Birch doors will do quite as well, it is claimed, and will cost \$35, instead of more than \$100 apiece.

"Stainless steel" for the bottom rail of the door frames, the last word in exquisite equipment.

"One million three hundred thousand dollars worth of 'albarene,' an acid-resisting soapstone which it is proposed to use not only in the laboratories, but on the roofs and stair treads and, in a few instances, in the ceiling. This item could be cut to at least \$200,000, the two belligerent supervisors now think.

"Fancy metal work, marble and tile. . . .

" . . . Supervisor Graves has charge of the county's building operations. Supervisor Shaw, who has charge of operating the hospital, says he wants to cut the cost of building so that he can keep the 'overhead' of operating down.

"I can do a lot of things for the poor of Los Angeles County," he said, 'with the interest on \$6,000,000.

"With the lower cost we can give the patients the same comforts and the same service that we can with the higher."

"The new hospital, with its 2400 beds, will be completed and ready for use December 31, 1932, according to present plans. It is being paid for out of tax levies.

"Down to date the architects have received in fees on the big building \$631,219.19, 6½ per cent of the cost. Five per cent of the cost is paid for plans and specifications and 1½ per cent for supervision.

"And the county pays for the blueprinting and the printing of the specifications."

Anent the cancer discussion which in the last few weeks has been given so much publicity in the lay press, an Associated Press dispatch in the Los Angeles *Times* of March 21 states as follows:

"Plans for leading American cancer experts to investigate the new cancer extract at San Francisco were announced tonight to the Academy of Medicine of North-New Jersey.

"To inform the public quickly is the purpose, Dr. Joseph Colt Bloodgood of Johns Hopkins University told the physicians. At the same time he appealed for 'some authoritative body of cancer students and scientists to deal with cancer cures announced by the daily press so frequently and in such an optimistic way that it reaches thousands of people dying of cancer and raises false hopes of a cure.'

Discoverers Invite

"The invitation to investigate, he said, came from Doctors Coffey and Humber, discoverers of the San Francisco serum.

"William W. Buffum, general manager of the Chemical Foundation, has already offered financial aid for such a commission," Doctor Bloodgood said. It is hoped that other foundations interested in cancer and cancer research institutions will offer sufficient funds to allow representatives to go to California and make this investigation.

Publicity Deplored

"To one who has given education of the public continuous study for almost twenty years, this recent publicity of a cancer cure that is as yet not a cure, raises the hope that ultimately we may obtain the same results through the press with correct information, and that we may influence the readers who have not the disease but need the protection of correct information, just as profoundly as we can influence those dying of the disease.

"Publicity through the press and radio with correct information has as yet never been tested to the limit. That is the next thing to do in this country."

The following clipping reports the appointment of a committee of medical men by Doctor Bloodgood of Johns Hopkins University to investigate the Coffey-Humber suprarenal extract. The committee was appointed at the request of Doctors Coffey and Humber.

The clipping is an Associated Press dispatch taken from the Los Angeles *Times* of March 22, and is as follows:

"Several distinguished American medical men were named today on a commission to go quickly to San Francisco to investigate the Coffey-Humber cancer experiment.

"Included are: United States Surgeon-General Cummings, Dr. Charles Mayo, Dr. Morris Fishbein, editor of the *Journal of the American Medical Association*; Dr. Francis Carter Wood of Columbia University; Dr. Clarence Cook Little, Dr. James Ewing of Cornell, Dr. Gideon Wells of the University of Chicago, and Dr. Joseph Colt Bloodgood of Johns Hopkins. The commission has a number of leading cancer experts.

"The invitation was telegraphed from a train at Liberal, Kansas, by Doctors Coffey and Humber, who are returning to San Francisco after testifying before a Senate committee about their cancer treatment.

Expenses To Be Paid

"The urge for speed was issued by Doctor Bloodgood who said that yesterday alone he was personally asked by sixty cancer sufferers whether they should go to San Francisco and ask the westerners to experiment upon them. These requests came to Bloodgood from as far as Guatemala.

"The telegram named Doctor Bloodgood to select the members of the commission. It was addressed to General Manager William W. Buffum of the Chemical Foundation, to whom Doctor Bloodgood assigned charge of arrangements. The foundation has offered to pay expenses. Doctor Buffum said those invited will be consulted about setting the earliest possible date.

"In a statement Doctor Bloodgood said:

Bloodgood Statement

"An extract from the adrenal gland is being experimentally employed by Doctors Coffey and Humber in the treatment of hopeless cancer. The adrenal gland lies above the kidney and is one of the glands of internal secretion.

"The claim that it relieves pain is no evidence of the curative value, because many other sera, extracts and other forms of treatment have temporarily relieved pain but never accomplished a cure.

"The claim that this adrenal extract produces central necrosis (breaking down of cells) in the cancer is also not an evidence of its curative value; because this necrosis takes place spontaneously in all cancer and has been observed to take place after many forms of treatment.

"At the present time cancer students throughout the world agree that there are but two forms of treatment that have ever accomplished permanent cures; complete removal of the cancer tumor by operation, or irradiation by x-ray and radium, with or without operation. . . ."

The good and bad effects of alcohol were formerly subjects of intense discussion by members of the medical profession. The opposite sides in the arguments usually held to their same viewpoints at the end of their discussions. Now, in connection with the Eighteenth Amendment, we are getting an indirect lay opinion concerning alcohol through the straw votes of the *Literary Digest*. The Los Angeles *Evening Herald* of March 20, printed the following figures:

Votes for repeal of prohibition continue to lead in the *Literary Digest's* nation-wide poll. Figures for the second week of the straw vote are as follows:

State—	For Enforcement	For Modification	For Repeal	Total
California	16,709	19,377	20,847	56,933
Connecticut	1,196	2,495	4,507	8,198
District of Columbia	1,022	1,326	2,227	4,575
Georgia	2,529	2,054	2,024	6,607
Illinois	19,502	26,225	37,657	83,384
Indiana	12,355	8,842	8,271	29,468
Iowa	12,960	9,181	8,262	30,503
Kansas	11,968	4,721	3,343	20,032
Michigan	8,047	7,792	9,314	25,153
Minnesota	11,625	11,518	13,858	37,001
Missouri	13,101	11,648	18,211	42,960
Nebraska	5,051	3,291	2,683	11,025
New Jersey	6,745	12,968	19,543	39,256
New York	24,296	54,917	84,128	163,341
North Dakota	1,160	1,085	1,179	3,424
Ohio	22,387	23,424	23,231	69,042
Oregon	3,555	2,779	1,996	8,330
Pennsylvania	1,906	3,064	5,750	10,720
South Dakota	1,370	1,118	916	3,404
Washington	6,103	5,975	5,094	17,172
Wisconsin	8,322	10,341	14,744	33,407
	191,909	224,141	287,885	703,935

TWENTY-FIVE YEARS AGO*

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. III, No. 4, April 1905

From some editorial notes:

... *Thank God!*—With the deepest and most profound reverence, one may well say, Thank God! The legislature has adjourned *sine die*! Fortunately no harm has been done so far as the relations of the physician to the public are concerned, and the standards required for eligibility to practice medicine within the state remain unchanged. The more than dangerous antivaccination bill, which was passed by both houses, was vetoed by the Governor, of course. Assembly Bill No. 267, which amended the present medical law practically out of existence. . . .

... Assembly Bill No. 1164, which amended the same law in the section defining the practice of medicine in such a way as to permit any pharmacist to practice medicine or surgery, was, on the same day, refused passage by a vote of 13 to 34. The two bills representing the very acme of superlative legislative asininity, the bills creating a board of examiners of "naturopathy" (?), died on the file. . . .

... For all of these things let us be thankful, and for that we do not have to be watchful for another two years, let us unite in saying, Thank God! The legislature has adjourned! But what an ironical commentary on the venality of the men we elect to frame our laws!

... *The Panama Canal Commission*.—Dr. C. A. L. Reed of Cincinnati has recently returned from his trip of inspection to the "Canal Zone" and has submitted his report, which appears in full in *The Journal of the American Medical Association*, March 11, 1905. . . .

... It was not so much the Chagres River that defeated the French company in its efforts, as it was the little mosquito, carrying yellow fever and estivo-autumnal malaria from victim to victim. In Cuba, Colonel Gorgas has shown what he can do to put to rout these pests if he is given a free hand. To trammel and tie down such a man when the issue is one of thousands of lives and millions on millions of dollars—not to speak of the reputation of a country and its president. . . .

... By all means, Mr. Roosevelt, do away with your foolish "commission," and let the men who have the brains and the ability dig the ditch. . . .

... *Have We Won the Fight?*—The journal takes considerable pleasure in publishing, on page 103, the full statement of a newly organized "Council on Pharmacy and Chemistry" of the American Medical Association. . . .

... Of course the very idea that the criticisms published in your journal may have had anything to do with this latest action of the trustees of the American Medical Association is not to be found in the editorial; that would be a degree of broadmindedness hardly to be expected, under the circumstances; the child seldom kisses the hand that spans it. . . .

... In a letter from a friend in New York, very recently received, appeared the following sentences, which we beg permission to quote: "I do not know how far you are acquainted with what is going on below the surface in the American Medical Association. I am myself not in a position to get very much information, but I know enough to be able to tell you positively that you are not going to win in your fight for the purification of the advertising pages of *The Journal of the American Medical Association*—for the good and sufficient reason that you have won it already! . . .

* This column aims to mirror the work and aims of colleagues who bore the brunt of state society work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and recent members.

From an article on "Report on an Epidemic of Diphtheria" by Ray Lyman Wilbur, M. D., Stanford University:

It is my aim to present to you in this paper a brief report on forty-three cases of diphtheria that recently came under my observation, and also to outline the methods used to prevent the spread of the disease, particularly by the prophylactic injection of antitoxin.

From an article on "Postoperative Ventral Hernia—Its Causes and Prevention" by C. George Bull, M. D., Alameda:

That hernia of the abdominal wall may follow celiotomy is too well known to require more than a bare statement. Its frequency varying from one per cent in clean cases to between 20 and 25 per cent in septic cases is very suggestive. Let us first, however, examine into its more frequent causes and we shall then be in a better position to determine how to prevent it. . . .

From medical society reports:

Alameda County.—The program arranged for the evening consisted of a symposium on infant feeding, as follows: "Breast Feeding," Dr. Dudley Smith; "Home Modification of Cow's Milk," Dr. Charles A. Dukes; "Proprietary Foods," Dr. Hubert N. Rowell. . . .

San Francisco County.—The regular meeting for the month of March was held in the parlors of the Y. M. C. A. on the 14th, the meeting being called to order by the president, Dr. Emmet Rixford. Dr. Herbert C. Moffitt read a paper on "Clinical Observations in Nerve Syphilis," which was discussed by Doctors Montgomery, Power, and others. Dr. William Fitch Cheney read a paper on "Tubercular Meningitis with Report of Three Cases," which was generally discussed. . . .

San Joaquin Valley Medical Society.— . . . Dr. McClelland of Los Banos sent a splendid paper the subject of which was: "Old-Fashioned Remedies," in which he urged the profession to be better students of the materia medica, and to formulate their own prescriptions rather than to use so many ready-made and proprietary mixtures, said to contain this or that and to cure a number of different diseases. It was greatly enjoyed by all and freely discussed. . . .

From an article on "Alcoholics" by Charles Anderson, M. D., Santa Barbara:

The discussion of the use of alcohol in medicine is so complicated by the contention of the warring elements, vested interests on one side and the religio-politico-ethical opinions on the other, that it is almost a dangerous proceeding to attack the question; for one side or the other is almost sure to raise the cry of interest, or the charge that the party has been influenced by unworthy motives. Unfortunately the same state of affairs seems to have arisen within the medical profession as exists without, if the discussions in some of the journals are to be taken as an index. The organization of medical temperance societies shows that at least one side has taken a decided stand on a subject that, scientifically, is still *sub judice*.

What we want in the consideration of this subject are facts, scientifically determined facts, not arguments. The latter, most unfortunately, are what we have most of on both sides of the question. . . .

From an article on "Uncinariasis, with Report of Seven Cases" by Herbert Gunn, M. D., San Francisco:

Uncinariasis or ankylostomiasis, known as hook-worm disease, Egyptian chlorosis, brickburners' anemia, miners' anemia, tunnel disease, etc., until recently believed to be endemic only in tropical countries, is now known to be widely distributed throughout Germany, France, northern Italy, southern United States, South America, etc. . . .

DEPARTMENT OF PUBLIC HEALTH

By W. M. DICKIE, *Director*

Rabies Becomes More Extensive.—The control of rabies in California becomes an increasingly greater problem each year. Totals of nearly 800 cases in animals have occurred in each of the past two years, and up to February 8 of the present year a total of ninety-four cases of rabies in animals has been reported within the state. The numbers of cases of this disease reported in California by years, since 1920 are as follows:

1920.....	176
1921.....	124
1922.....	559
1923.....	1092
1924.....	502
1925.....	353
1926.....	375
1927.....	376
1928.....	791
1929.....	786
1930 to February 8.....	94

This makes a total of 5228 cases reported in California during the past ten years. More than 75 per cent of these cases have been reported in the southern part of the state, but during the past few years the disease has been increasingly prevalent in northern counties. So far this year, cases have been reported in Fresno, Kern, Kings, Los Angeles, Napa, Riverside, Sacramento, San Diego, San Joaquin, Stanislaus, Tulare and Yuba counties. In some counties, where a few years ago intensive action was taken in the control of stray dogs, rabies had been almost eliminated.

The numbers of human deaths from rabies occurring in California since 1920 are as follows:

1920.....	4
1921.....	5
1922.....	4
1923.....	11
1924.....	5
1925.....	1
1926.....	5
1927.....	1
1928.....	3
1929.....	2

It is unfortunate that these human deaths have occurred, for they might, all of them, have been prevented if the disease in animals had been placed under control. The remedy lies in the control of the dog population, chiefly in the control of stray dogs. Rabies seldom occurs in dogs that are properly housed and cared for, unless they come in contact with stray animals which are infected with the disease.

While nearly all cases of rabies occur in dogs, cases have been found in California during the past ten years in cats, cows, horses, coyotes, goats, hogs, sheep, skunks, mules and foxes.

Persons who have been bitten by rabid animals are in great danger of contracting the disease. Bites upon the face near the large nerve centers are particularly dangerous. Wounds from dog bites should be cauterized, only, with concentrated (fuming) nitric acid. No other known agent is of any value whatsoever in cauterizing such wounds. The Pasteur treatment is preventive only, and in order to be effective its administration must be started early. Human beings who develop any symptoms of rabies do not recover. There is no record of anyone who ever contracted the disease having escaped with his life.

The first symptom of rabies in dogs is a change in disposition. Dogs which are normally good-natured become savage, and dogs which are normally savage generally become strangely docile. There is a change in the tone of the animal's voice. There follows a paralysis of the muscles of the throat which causes the animal to attempt to use the paralyzed muscles. This produces the tendency to bite, and it is during this stage that the disease is most readily transmitted. In the final stage of rabies, there is a complete paraly-

sis of the hind legs, the animal being unable to run without falling.

It is not always necessary that an individual must be bitten by a rabid dog in order to contract rabies. Many individuals have contracted the disease through handling sick animals, the infective agent gaining entrance through cuts or wounds in the skin. Because rabies is 100 per cent fatal in human beings, and because it produces one of the most agonizing diseases that is known, its control is of the utmost importance. As an economic measure in the prevention of losses to stock growers its control is also highly important.

Investigations of Public Health Problems.—While the disease known as Rocky Mountain spotted fever is no longer the deadly menace that it used to be, thanks to the protective vaccine devised by workers of the Public Health Service, there is evidence that the area of its distribution is considerably wider than was formerly supposed. The opening up of the country may also be expected to increase, at least temporarily, the exposure of persons to this disease. By analogy with other diseases, however, the ultimate reduction and virtual disappearance of this condition may be expected as a result of the intensive occupation of the land by an increased population. In the meantime, there is abundant opportunity for continued study in this field, since no means have as yet been discovered for eradicating the disease among the small animals which constitute the natural reservoirs of the infection, and since laboratory studies of the reputed cause of the disease have thus far failed to show conclusive results. The manufacture and distribution of the preventive vaccine developed by the Public Health Service have been continued and increased. Vaccine sufficient to vaccinate 5000 persons has been dispensed, but the results following its use, while excellent, have not been completely assembled.

For the first time in a number of years a definite increase of malaria has been observed in certain areas. This phenomenon has increased interest in the malaria problem, and studies are under way to determine its cause and to devise means for combating it. The use of Paris green for the control of malaria-carrying mosquitoes has been shown to have much wider application than was formerly supposed. Much work has been done on the application of this substance to breeding areas by means of inexpensive power handblowers to be used either from boats or from the shore in connection with portable equipment which would come within the means of almost any community. Gratifying progress has been made in the study of larvicides and new remedies for malaria. A trial of these various methods of malaria control will be made during the year on a county-wide scale in two widely separated counties.

The studies of the salt marsh mosquito problem have been completed. The report under preparation will be comprehensive and will include descriptions of the various kinds of breeding places of these mosquitoes; an enumeration of their species, habits and distribution; an estimate of the extent of the problem and various means of control which have been found effective in various places and under different circumstances.

There occurred during the past year a number of serious epidemics of meningococcus meningitis (cerebrospinal meningitis). Observations of the specific serum used in the treatment of this disease showed that the results were unequal or irregular, and a vigorous attempt is being made to improve the therapeutic efficiency of this serum. This is an extensive undertaking since strains of meningococci must be selected from various epidemics and studied as to their pathogenic and immunizing properties.

CALIFORNIA BOARD OF MEDICAL EXAMINERS

By C. B. PINKHAM, M. D.
Secretary of the Board

In this issue in this column are given some excerpts from the 1929 annual report of the state medical examining board.*

WRITTEN EXAMINATIONS

The high percentage of examinees that passed during the year 1929 is a practical demonstration of the high standard of present-day medical education. The percentage of failures among graduates of extra state schools was not so high as the prior year. Again our three active California medical schools have made a perfect score in the written examinations. A 1918 graduate of the College of Physicians and Surgeons of San Francisco, which closed the same year, failed.

RECAPITULATION, 1929, EXAMINATION RESULTS

Physicians and Surgeons

	Passed Failed Total			Per cent	
	Passed	Failed	Total	passed	failed
College of Medical Evangelists	53	0	53	100	0
Stanford University	45	0	45	100	0
University of California	40	0	40	100	0
College of Physicians and Surgeons, San Francisco	0	1	1	0	100
Extra state	159	17	176	90+	9-
Totals	297	18	315	94+	5-

†Grades of three applicants raised by Review Committee.

MEDICAL COLLEGES REPRESENTED

The following table lists the medical colleges that sent written examinees before the board, the year each applicant graduated from said medical college, and whether passed or failed:

School	Year of graduation	Passed	Failed	Total
Boston University	1928	1	0	1
College of Medical Evangelists	1927	1	0	1
	1928	3	0	3
	1929	49	0	49
College of Physicians and Surgeons, Boston	1916	0	1	1
College of Physicians and Surgeons, San Francisco	1918	0	1	1
Columbia University College of Physicians and Surgeons	1928	1	0	1
Creighton University School of Medicine	1928	3	0	3
	1929	6	3	9
Dalhousie University Faculty of Medicine	1927	1	0	1
George Washington University Medical School	1929	1	0	1
Harvard University Medical School	1924	1	0	1
	1925	1	0	1
	1926	1	0	1
	1927	1	0	1
	1928	2	0	2
	1929	1	0	1
Howard University School of Medicine	1921	0	1	1
Indiana University School of Medicine	1924	0	1	1
Indiana University School of Medicine	1924	1	0	1
Jefferson Medical College	1928	1	0	1
	1929	1	0	1
Johns Hopkins University School of Medicine	1923	1	0	1
	1928	2	0	2
Laval University Faculty of Medicine	1912	0	1	1
Loyola University School of Medicine	1928	1	0	1
	1929	2	0	2
Marquette University School of Medicine	1929	1	0	1
McGill University Faculty of Medicine	1920	1	0	1
	1926	1	0	1
	1928	1	0	1
	1929	1	0	1
National University of Athens, Greece	1923	1	0	1
National University of Mexico, Faculty of Medicine	1914	1	0	1
	1918	1	0	1
	1924	0	1	1

* See also editorial in this issue concerning annual report of the state medical examining board.

School	Year of graduation	Passed	Failed	Total
Northwestern University Medical School	1921	1	0	1
	1927	2	0	2
	1929	10	0	10
Ohio State University College of Medicine	1926	1	0	1
Queen's University Faculty of Medicine	1915	0	1	1
Royal University of Siena	1928	1	0	1
Rush Medical College	1903	1	0	1
	1920	1	0	1
	1925	1	0	1
	1927	1	0	1
	1928	3	0	3
	1929	13	0	13
St. Louis College of Physicians and Surgeons	1923	1	0	1
St. Louis University School of Medicine	1928	2	0	2
	1929	5	0	5
Stanford University School of Medicine	1928	3	0	3
	1929	42	0	42
Trinity Medical College (Toronto)	1904	1	0	1
Tufts College Medical School	1927	1	0	1
Tulane University of Louisiana School of Medicine	1925	1	0	1
	1929	4	0	4
University of Arkansas	1927	1	0	1
University of Bonn Faculty of Medicine	1923	1	0	1
University of Buffalo	1928	1	0	1
University of California Medical School	1928	2	0	2
	1929	38	0	38
University of Carolina, Prague, Czech	1921	0	1	1
University of Cincinnati College of Medicine	1929	2	0	2
University of Colorado School of Medicine	1928	4	0	4
	1929	1	0	1
University of Glasgow Faculty of Medicine	1890	0	1	1
University of Göttingen, Germany	1922	1	0	1
University of Guadalajara, Mexico	1918	1	0	1
	1922	0	1	1
	1928	0	1	1
University of Illinois College of Medicine	1922	1	0	1
	1924	1	0	1
	1927	1	0	1
	1928	4	0	4
	1929	6	0	6
University of Iowa	1928	3	2	5
University of Louisville School of Medicine	1927	1	0	1
	1928	2	0	2
University of Manitoba Faculty of Medicine	1916	1	0	1
University of Maryland School of Medicine	1928	1	0	1
University of Michigan Medical School	1927	1	0	1
	1928	2	0	2
University of Minnesota Medical School	1928	1	0	1
	1929	1	0	1
University of Nebraska College of Medicine	1928	1	0	1
	1929	4	0	4
University of Oklahoma School of Medicine	1928	3	0	3
University of Oregon Medical School	1927	1	0	1
	1928	3	0	3
	1929	4	0	4
University of Pennsylvania	1929	1	0	1
University of Pittsburgh School of Medicine	1927	1	0	1
	1928	1	0	1
University of Tennessee College of Medicine	1929	1	0	1
University of Tomsk, Siberia	1911	1	0	1
University of Toronto Faculty of Medicine	1928	1	0	1
	1929	1	0	1
University of Vermont College of Medicine	1928	1	0	1
University of Vienna Faculty of Medicine	1923	0	1	1
University of Wisconsin Medical School	1928	2	0	2
	1929	1	0	1
Vanderbilt University School of Medicine	1928	1	0	1
Washington University School of Medicine	1928	2	0	2
	1929	2	0	2
Western Reserve University School of Medicine	1928	1	0	1
Woman's Medical College	1927	1	0	1
Yale University School of Medicine	1926	1	0	1
Totals		298	16	314

SOURCE OF RECIPROCITY LICENTIATE

The greater number of reciprocity certificates in 1929 were issued to applicants from Illinois, and Ohio shared second place with Missouri, while New York, which headed the list in 1928, ranked fourth, sharing honors with Iowa and Minnesota.

Tabulation by States

State	1928	1929	State	1928	1929
Alabama	0	10	Nebraska	16	9
Alaska	0	0	Nevada	0	2
Arizona	0	4	New Hampshire	0	0
Arkansas	0	0	New Jersey	0	1
Colorado	8	11	New Mexico	0	1
Connecticut	0	1	New York	27	13
Delaware	1	0	North Carolina	1	2
District of Columbia	1	1	North Dakota	3	4
Florida	1	3	Ohio	9	16
Georgia	3	2	Oklahoma	4	2
Hawaii	2	0	Oregon	6	11
Idaho	8	2	Pennsylvania	9	6
Illinois	19	26	Philippine Islands	0	0
Indiana	8	5	Rhode Island	1	0
Iowa	6	13	South Carolina	0	0
Kansas	4	6	South Dakota	2	4
Kentucky	2	1	Tennessee	1	6
Louisiana	2	3	Texas	6	4
Maine	1	0	Utah	8	6
Maryland	6	11	Vermont	0	1
Massachusetts	2	3	Virginia	1	1
Michigan	10	14	Washington	5	7
Minnesota	15	13	West Virginia	0	0
Mississippi	0	0	Wisconsin	4	6
Missouri	13	14	Wyoming	1	1
Montana	3	3	Totals	221	241

HEARINGS

Charges of unprofessional conduct under the provisions of Section 14 of the Medical Practice Act have been filed against thirty licentiates during the year just closed, a decrease of six from the number of hearings held during the prior year.

It is indeed disheartening when after weeks of earnest endeavor in securing evidence, after hours of patient listening to the testimony submitted and thereafter determining the respondent guilty of having obtained a California license by fraud, to have some court set aside the finding of the board, not because of the evidence, but because of some technicality wherein a complaint was faulty, losing sight of the important issue, namely, fraud in obtaining a California license. Two such cases, one for seven years, another for five, have blocked the California board in revoking licenses convincingly shown to have been obtained by fraud. Injunction, pending in one case for practically two years, stops the board from openly acting on the sworn testimony of two confessed dealers in fraudulent credentials, both of whom testified—one that as an official examiner of the State of Missouri he had made out a false certificate of alleged examination which mentioned that the individual named therein had been examined for three days, whereas said examiner testified under oath to the California board he had not seen the examinee. He further stated he had sold this educational certificate with other fraudulent credentials to our other witness. Our second witness testified he had procured said certificate from the witness first mentioned and in turn had sold it to the individual who used it as an important part of his credentials to obtain a California license. 'Tis a sad commentary on modern justice that, with such evidence of fraud, the courts so tie the hands of the Board of Medical Examiners that a license obtained by fraud cannot be revoked. Here again the Diploma Mill Bill offers a ray of hope, and we trust that, though our efforts to revoke a license obtained by fraud are in vain, we have a trump card through prosecution on a felony complaint.

As noted in prior reports, narcotic violators comprise the largest group of those charged with unprofessional conduct, although less in number than the year 1928:

(a) Narcotic	10
(b) Illegal operation (alleged)	9
(c) Habitual Intemperance	3
(d) Miscellaneous	8
Total	30

The judgments rendered by the board during the year just closed are classified as follows:

Guilty—Revoked	8
Guilty—Probation	7
Guilty—Penalty suspended	2
Dismissed	4
Deferred to February, 1930.	9
Total	30

Department of Professional and Vocational Standards, Board of Medical Examiners.—Results of the written examination for physician and surgeon certificate held in Los Angeles February 4 to 6, inclusive, 1930:

School	PASSED	Year of Graduation	Per Cent
College of Medical Evangelists.....	(1929)		86
Creighton University School of Medicine.....	(1929)		81 1/9
Harvard University Medical School.....	(1928)		85
Long Island College Hospital.....	(1929)		90 2/9
Northwestern University Medical School.....	(1927)		87 4/9
Northwestern University Medical School.....	(1929)		83 7/9
Rush Medical College.....	(1929)		82 3/9
Rush Medical College.....	(1921)		81 4/9
Rush Medical College.....	(1923)		87 2/9
Rush Medical College.....	(1929)		75 7/9
Rush Medical College.....	(1929)		82
Rush Medical College.....	(1929)		81 6/9
St. Louis University School of Medicine.....	(1929)		80 8/9
St. Louis University School of Medicine.....	(1929)		82 5/9
St. Louis University School of Medicine.....	(1929)		79
St. Louis University School of Medicine.....	(1929)		82 5/9
Tulane University School of Medicine.....	(1928)		82 7/9
Tulane University School of Medicine.....	(1929)		86 2/9
Tufts College Medical School.....	(1929)		80 8/9
University and Bellevue Hospital Medical College.....	(1927)		82 6/9
University of Colorado School of Medicine.....	(1924)		77 5/9
University of Colorado School of Medicine.....	(1929)		92 2/9
University of Colorado School of Medicine.....	(1929)		83
University of Colorado School of Medicine.....	(1929)		90 1/9
University of Colorado School of Medicine.....	(1929)		89 1/9
University of Colorado School of Medicine.....	(1929)		81 8/9
University of Illinois College of Medicine.....	(1929)		83 8/9
University of Illinois College of Medicine.....	(1929)		85 1/9
University of Iowa Medical Department.....	(1928)		79 1/9
University of Kansas School of Medicine.....	(1929)		84.5
University of London.....	(1926)		85
University of Louisville School of Medicine.....	(1929)		83 5/9
University of Minnesota Medical School.....	(1927)		86.3
University of Nebraska College of Medicine.....	(1928)		81 1/9
University of Oklahoma School of Medicine.....	(1929)		82 4/9
University of Oklahoma School of Medicine.....	(1929)		83 6/9
University of Oregon Medical School.....	(1929)		88 1/9
University of Rochester School of Medicine.....	(1929)		91 1/9
Stanford University Medical School.....	(1929)		80 1/9
Washington University Medical School (St. Louis).....	(1929)		85 3/9
Washington University Medical School (St. Louis).....	(1929)		82 8/9
Western Reserve University School of Medicine.....	(1929)		81
Woman's Medical College of Pennsylvania.....	(1929)		89 8/9
FAILED			
Charles University of Prague.....	(1921)		72 4/9
College of Physicians and Surgeons, Boston.....	(1916)		65 8/9
Creighton University School of Medicine.....	(1929)		73 3/9
University of Guadalajara (Mexico).....	(1921)		64 6/9
University of Guadalajara (Mexico).....	(1923)		69
University of Illinois College of Medicine.....	(1924)		74 4/9

News Items, April, 1930

Recent reports relate that a narcotic prescription made out for Ralph Conley and signed P. H. Sweet, M. D., was recently presented at the Roscoe Drug Store, Roscoe, and paid for with a \$10 check by a party posing as Ralph Conley, who received \$8.25 in change, the check later being returned by the West Los Angeles branch of the Bank of Italy, on which it was drawn, marked "No account at this branch."

Giuseppe Accardo, announcing himself as a specialist for sprains, dislocation and rheumatism of the

spine, on February 24 pleaded guilty in the city of Los Angeles to a charge of violation of the Medical Practice Act and was given a suspended sentence of a \$200 fine or twenty days in the city jail.

According to reports, L. Allison, practicing what he calls "Weltmer-Craig System of Magnetic Healing" at 120 North Orange Street, Glendale, on March 1 pleaded guilty to a charge of violation of the Medical Practice Act and paid a fine of \$100, sentence being suspended for two years on condition of no further violation of the Medical Practice Act.

Heated words flew at the concluding session of the State Board of Medical Examiners' three-day meeting at Foresters Hall, 1329 South Hope Street, yesterday as a result of a legal fight over the case of Dr. Francis J. Bold, Whittier, charged with having performed an illegal operation. Attorney William T. Kendrick, Sr., appearing for his son, who had obtained a writ of prohibition halting the board's hearing of charges, set off the verbal fireworks when he attempted to explain the defense procedure. The board members contended that it had been stipulated they were to be notified when the petition for the writ was presented in court, but they asserted they had not been so notified. Prosecutor Richard Lyman scored the defense for what he described as a "flagrant breach of faith." Attorney Kendrick originally obtained a writ of prohibition in Superior Judge Wilson's court. The judge dissolved the writ at a hearing yesterday, to which all the members of the board had been subpoenaed, but gave the defense leave to amend. Another writ was obtained in the court of Superior Judge Wood, returnable next Tuesday before Superior Judge Gates . . . (Los Angeles Times, February 7, 1930).

According to reports, A. S. Clayton, advertising as an "electric needle specialist, removing superfluous hairs, warts, moles permanently removed . . ." recently pleaded guilty in Ventura on a charge of violation of the Medical Practice Act and was sentenced to pay a fine of \$100, sentence being suspended.

According to reports, Lucy V. Craig of Montrose on March 1 pleaded guilty to a charge of violation of the Medical Practice Act and was sentenced to pay a fine of \$100, suspended for two years on condition of no further violation, it being stated that she was engaged in practicing the Weltmer-Craig system of magnetic suggestive therapeutics and held a diploma "evidently issued by her and her husband to herself, the same being signed A. L. Craig, president, and L. V. Craig, secretary. That it was her intention to issue these diplomas in Glendale is indicated by the fact that she had in her place of business diplomas in blank, already signed by her husband and sealed, ready to fill out for anyone who wanted one. . . ."

Answering a recent attack on the policy of the state in regulating professions and vocations and permitting members to remove from practice those under their jurisdiction, which appeared in a newspaper published in Chico by one of our legislators, the San Francisco Recorder of Monday, February 10, 1930, takes up the cudgels for the licensing boards, relating that in the original article the author "fails to state that in every instance persons disciplined or denied the right to continue in practice, have the right to appeal to the courts for a review of the action of the disciplining body; nor does he point out that no civil remedy in the form of an action for damages for malpractice has been taken away from the people by these regulatory statutes. As a matter of fact, the public is far better protected today than it has ever been against crooks, charlatans, and incompetents, for now such persons in regulated professions and vocations may be removed from their opportunity to do further damage to those who entrust themselves or their affairs to their hands."

Police reports that Maurice E. Eisenbach has been arrested in Jacksonville, Florida, with stolen medical credentials of Dr. Joseph H. Marks of Los Angeles in his possession, were announced today by Dr. Charles B. Pinkham, secretary of the Board of Medical Examiners. Doctor Marks, seeking a California state license, informed state board officials last week that his medical diploma and credentials, as well as his United States Army Medical Corps commission were stolen in January while he was serving as an intern in a St. Louis hospital. He said he suspected Eisenbach, a fellow intern (San Francisco Examiner, March 13, 1930). The documents reported by Doctor Marks as having been taken from him were a 1928 medical diploma from the St. Louis University Medical School, a 1928 Missouri state license (No. 20158), a 1928 United States Army Medical Corps commission, a certification of internship at the Jewish Hospital, a Carthage (Missouri) High School diploma, a Zeta Beta Tau fraternity certificate, and a 1928 St. Louis University class picture.

According to reports, P. S. George was on February 7, in the city of Los Angeles, adjudged guilty of violation of the Medical Practice Act and sentenced to pay a fine of \$100, sentence suspended on condition of no further violation.

The name of Robert Griffin, "physiotherapist and x-ray specialist," was listed at police headquarters today. He was arrested in his downtown office, 747 South Hill Street, accused of violating the State Poison Act, by possession of two complete narcotic hypodermic outfits. The arrested man was listed as general manager and director of Health Studios, Ltd. (Los Angeles Record, February 18, 1930.)

Petition for writ of review by Dr. Fred B. Tapley to compel the State Board of Medical Examiners to restore his license, was taken under submission yesterday by Superior Judge Walter Perry Johnson. The license of Doctor Tapley, Marysville, was revoked last July when Doctor Tapley was accused of performing two illegal operations (San Francisco Examiner, January 16, 1930).

A ninety day jail term was hung over the head of Dr. J. M. Threadgill, Westwood physician, yesterday, by Municipal Judge Wilbur C. Curtis, to remind him to report treatment of gunshot wounds hereafter to police. The doctor pleaded guilty yesterday, saying he innocently had violated the law when he secretly treated a bullet wound in the head of Theodore Jerke, asserted bandit (Los Angeles Illustrated News, December 27, 1929).

Dr. H. G. Throop, drugless physician with offices at 109 North Bright Avenue, was found not guilty of practicing as a chiropractor. . . . On another charge, one of advertising as a chiropractor, he was found guilty and sentenced to pay a fine of \$50, which he paid (Whittier News, December 3, 1929).

The County Grand Jury last night began investigation into charges against several hospital and health associations. Eight complaints are on file. The complaints allege the associations sold hospital or medical service to members, but when ailing members sought treatment it was either postponed or refused outright (San Francisco press dispatch, printed in the Sacramento Bee, January 22, 1930).

T. Wah Hing, well-known Sacramento . . . Chinese herb specialist, yesterday was charged with practicing without a license in a complaint issued by the district attorney's office and filed with Justice of the Peace Silas Orr of North Sacramento. The complaint was issued following an objection filed by members of the State Board of Medical Examiners . . . (Sacramento Union, January 28, 1930). (Previous entries, December 1925, January 1926, and January 1927.)